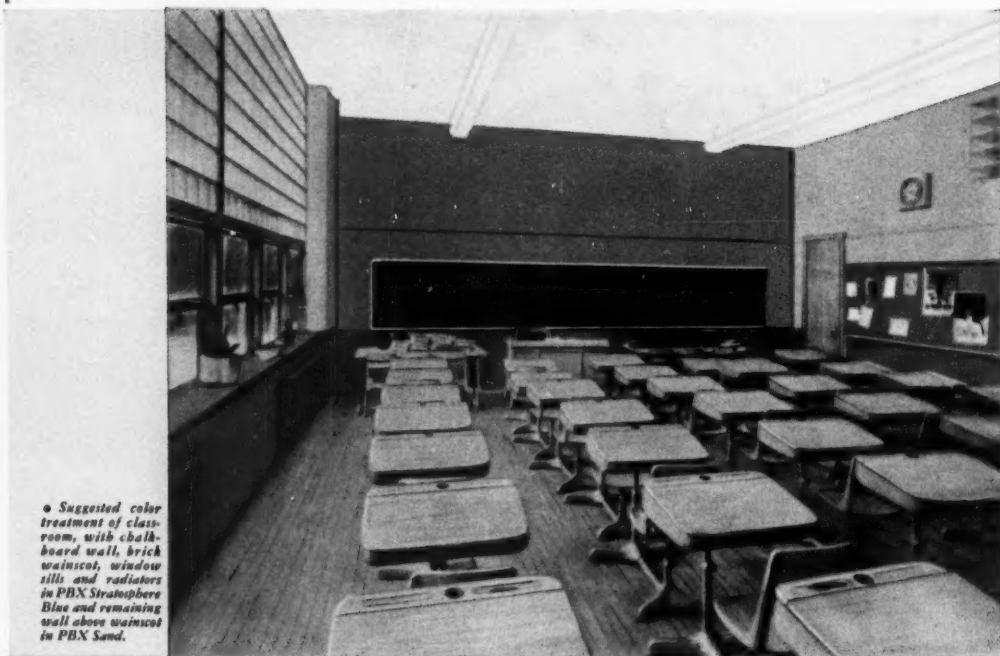


The **School Executive**

MAY 1953



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EDUCATION
HAVE CHANGED
SINCE 1800 . . .



● Suggested color treatment of classroom, with chalkboard wall, brick wainscot, window sills and radiators in PBX Stratospere Blue and remaining wall above wainscot in PBX Sand.

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The School Executive

MAY 1953

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Webster Walvector with attractive cabinet-type enclosure adds a modern touch in classrooms of Garfield School.

New School Building from Old

Maywood, Ill. . . . Public school officials here have extended the usefulness of the old section of the 53-year-old Garfield School by comprehensive modernization. Outstanding feature was replacement of obsolete hot air system with Webster Walvector.

Rejuvenation of the old section of the Garfield School in 1951 involved such things as fresh, light-colored paint, sanitary asphalt floor tiles and modern, movable desks. These improvements would not have been long lasting with the obsolete duct-type hot air system. Hence, Webster

Garfield School, Maywood Ill. Old section, built about 1900, was completely rejuvenated in 1951. Heating installation by Tru-Perimeter Heating & Ventilating Co., Inc., with the approval of Chiaro & Chiaro, Architects and Engineers, school architects.



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THE approaching end of the school year means the beginning of another round of planning for administrators. The JUNE SCHOOL EXECUTIVE is designed to be a stimulating aid in that planning.

Abel Hanson will take "The Superintendent's Role in Instruction" as his subject in the Green Sheet. . . . Another Top Award-winning school in our recent Better School Design competition—the West Columbia, Texas, elementary school by architect Donald Barthelme—will be described in a picture story . . .

. . . Trends in Interiors, among other things, will be covered in the second and final installment of the analysis of entries in the competition, also well illustrated . . .



. . . Thomas E. Turner has contributed an article on "a summer school children like to attend"—in Pacific Grove, California. This young lady studied Marine Biology there.

These are just a few of the many absorbing and useful articles you will find between the covers of your JUNE SCHOOL EXECUTIVE.

Sincerely,
Walter D. Cocking, Editor

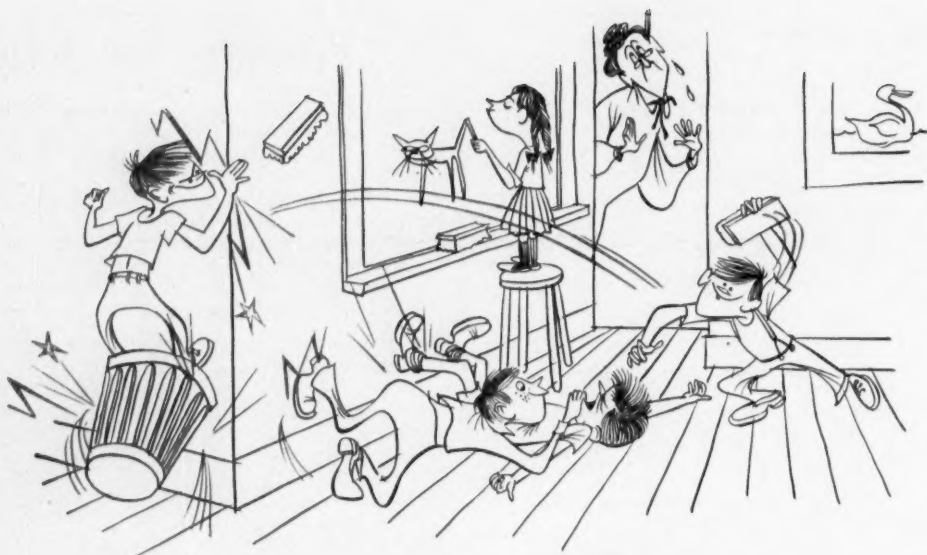
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By Walter D. Cocking

Wanted: Partnership in Education

AS ASHLEY MONTAGUE so well documents, cooperation is the wellspring of constructive action. We need much more of it in all phases of human endeavor. Education needs it particularly, for education is a many-faceted process which involves many people and agencies. The basic business of education is the development of people. The only business schools have is education.

There is an increasing body of evidence to show that people learn and develop largely through their relationships with one another. If these statements are true, then schools are concerned with the involvement of lots of people as they work at their job.

Who are some of these people? They are boys and girls, their parents, their companions, the representatives of other community agencies, such as churches, libraries, welfare, local government, clubs, citizen groups, etc. Inside the school organization, these people are teachers, librarians, lunchroom employees, supervisors, nurses and doctors, administrative officials, custodians and school board members.

The success of schools is bound up to a considerable degree with the extent to which these various people and groups are welded together into one team having a single purpose. Partnership in a common venture, then, is a primary requisite for successful school achievement.

The need for partnership has not always been recognized by school administrators. Indeed, there was a period not so long ago in which isolation from other groups and agencies seemed to be considered advantageous. The less people bothered about schools the better was the school climate, or so it was held.

People were told what school officials wanted them to know, and little else. Teachers were urged to confine their interests and efforts to their own particular assignments, and interest or participation in anything else was considered "getting out of line." Pupils were in school to be told what to do and were held to account for those things.

The school board or the superintendent, or both, were considered all-knowing and all-powerful. They determined what should be done, issued orders, and then saw to it that orders were carried out. Partnership was unknown and unwanted. Today in too many communities such situations still persist.

ON the other hand, great progress is being made in the acceptance of the partnership concept and in putting it into action. More and more there is recogni-

tion of the need for partnership in the conduct of school affairs. At times there is lack of "know how" in developing team work among the various groups. However, community after community is experiencing a sense of "togetherness" in school matters.

TEACHERS are having much greater opportunity for participation in recommendation on school policy and particularly on school program issues. They increasingly participate in the educational planning involved in new school building problems.

Pupils in the schools at long last are beginning to have at least a slight partnership role in what they study and do at school. And this is a far step from the traditional procedure in which an adult regarded as godlike and all-knowing determined what was good for children, most of whom he had never seen.

Custodians' experience and know-how is being recognized as important, not only in obtaining better buildings but in understanding children and why they act as they do. Citizens are increasingly coming together to consider what schools should do in their communities, how much teachers should be paid, what kinds of new buildings should be constructed, and many related problems.

Boards of education are more frequently seeking citizen group assistance with all types of problems. The notion that school boards were selected to do a community's thinking about schools is certainly lessening.

All these illustrations are examples of efforts to involve more and more people in the school's business. The trend is encouraging. Let's hope it grows in quantity, and also in efficiency. As I see it, a still greater involvement is needed. If I could have my way I would involve representatives of all groups in a community on all questions and issues of the schools. I would strive for real partnership and at the same time recognize fully that various individuals or groups have direct responsibility for legalizing and carrying out various tasks and procedures.

It will be a great step forward when communities generally approach community problems, including schools, as a partnership matter. Such a partnership would involve many people, recognize responsibility, coordinate agencies and tasks and secure evaluation of results. That is the kind of a community in which I should like to live, and in which I should like to have my children educated.

American

SINGLE-PUPIL TABLES

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CLASSROOM RESULTS

These modern, single-pupil tables embody major advances in design that help make teaching and learning easier. Readily adaptable to any desired classroom grouping. The sturdy twin oval-shaped standards tend to reduce excessive movement and scraping of chairs by pupils. The strong plywood tops are bonded with hot-press urea-resin, and lacquered in light, natural-wood finish. The standards and sanitary, all-steel book-boxes have a smooth, durable beige enamel finish. Full-length pencil tray inside. Inkwell is an optional accessory. Heights: 21, 23, 25, 27, 29 inches.

The Envoy Chair No. 368, as illustrated, is designed for maximum posture comfort, with deep-curved back rails—the lower one self-adjusting to fit each occupant. Available heights: 11, 13, 15, 17 inches.



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No. 324 with Lifting Lid

This popular table, with non-slam friction-controlled lifting lid, provides a top usable either in level position, or at 10° slope. Opens wide for easy access to roomy, sanitary, one-piece steel book-box. Top is 18 x 23 $\frac{1}{4}$ inches.

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Newly designed by American Seating Company's engineers, with an overhung, 18 x 24 inch top that permits placing several tables tightly together when an over-all large flat work surface is desired. Open-front, one-piece steel book-box is 16 x 21 $\frac{1}{4}$ inches, 4 inches deep.



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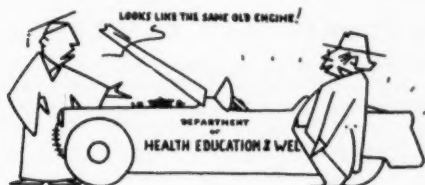
KEYNOTES

comments on the educational scene

Cabinet Status for Education

PRESIDENT EISENHOWER with the approval of the Congress has raised the Federal Security Agency to Cabinet rank under the title of Department of Health, Education and Welfare. Mrs. Oveta Hobby has been named Secretary. This action recognizes that education is of sufficient national concern that it is deserving of cabinet status. It is interesting that educators generally opposed the move preferring that the present Office of Education be made an independent agency with a control board of lay citizens.

Probably the most important change created by the new status is a proposal that a commission of lay citizens



be set up to advise the President on educational policy matters of federal concern. As the structure of the new department does not provide for even an assistant secretary concerned with education, it is unlikely that education will receive any more attention or status than previously.

Recruitment of Teachers

PROBABLY THE MOST CRITICAL PROBLEM facing schools today is the shortage of qualified elementary teachers. This condition will follow through into the high school in a few years. There must be something we can do about it.

Raising salaries is one positive step, but there are also other considerations. One has to do with the way teachers are received by the communities in which they teach. Parent-teacher groups, chambers of commerce, citizens committees and other community groups should concentrate on better integration of teachers into community living.

More important is the emphasis, or lack of emphasis, we give to teaching as a social force. We should challenge young people to enter teaching because it is an opportunity to improve living and to serve people. Today more people are entering religious work and social

service than ever before. These occupations generally receive less monetary award than teaching. Perhaps we have not stressed purpose enough, and monetary reward too much.

Positive efforts are being made to recruit prospective teachers. Many schools have chapters of Future Teachers of America. Some schools encourage upper-grade children to tell stories, act as librarians, and direct play for younger children. Others arrange cooperative teaching programs for high school seniors with outstanding elementary teachers. These experiences have excellent potentiality for exploration of the teaching vocation.

Let's use our initiative and originality to bring bright, capable, purposeful young people into the teaching profession.

HARRY J. LINTON
*Superintendent of Schools
Schenectady, New York*

Vending Machines: Pro and Con

TWENTY YEARS AGO very few, if any, vending machines could be found in our schools. Today many school systems have ventured into this realm of commercialization and are beginning to be plagued by demands for extension of the privilege. The change has come about through various reasons.

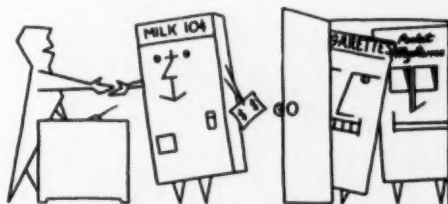
Machine-vending has expanded to cover many products that consumers want.

Vending machines apparently pay their way, if they can get free or cheap rental space and are readily accessible to patronage.

School authorities like to augment their budgets for student activities through the small percentages allowed on machine sales.

The machines on the school premises tend to keep children from the "joints" that spring up in a school's neighborhood.

The questions that should be raised run something like this: Should public schools become sales centers? Should a tax-supported institution compete with tax-



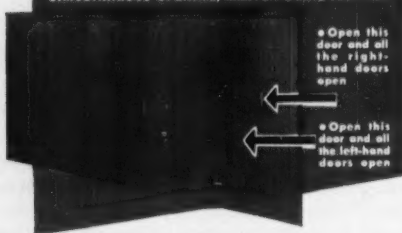


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Modern space-saving, cost-cutting Lockerobes were developed in cooperation with hundreds of architects and school executives. They provide the perfect solution to the problem of noisy, disorderly, space-wasting old-fashioned cloakrooms, and the disadvantages of individual lockers for small children.

1st Lockerobes assure orderliness and neatness. One person, the teacher, opens and closes, as well as locks, all the doors simultaneously with a single master control—a Medart exclusive not available in other wardrobe units.

2nd Lockerobes greatly reduce the cubic content requirements of new classrooms thus contributing substantial savings in building costs. Only a 16" deep unfinished recess is required for installation. Large areas of plaster, tile or glazed brick are eliminated. Overhead framing and extra flooring, required for cloakrooms, are unnecessary.

In old classrooms, where the need for additional desk space is critical, cloakrooms can be eliminated and Lockerobes installed to gain the extra area required.

3rd Lockerobes are fireproof, vermin-proof, sanitary. There is ample provision for unrestricted ventilation. Maintenance is virtually nil. Exceptionally rugged steel-framed fabrication and reinforced steel doors plus a multiple baked enamel finish keep Lockerobes new-looking for years.

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describing both Lockerobes and Medart Grade-Robes

Non-recessed free-standing Lockerobes for installation against the wall, on steel or built-in bases, also provide space-saving advantages over outmoded cloakrooms, and include all the other features of recessed Lockerobes.

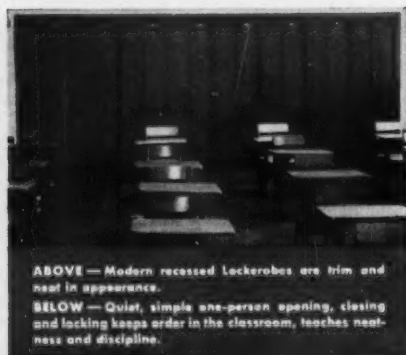


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paying business? Should boards of education charge rent for space occupied by vending machines? If soft drink and candy machines are permitted, where is the point of stoppage? Should new school buildings be planned with a vending machine center?

Other issues, to be sure, concern the school itself, the students and the teachers. Should the school be saddled with the administrative problems arising from the use of vending machines? Cannot the cafeteria program satisfy all the "drink and eat" needs of children? If machines are to be used, why not make them a part of the "snack bar" facilities of the school? Are there not additional cleaning problems associated with the use of machines which add to the cost of school operation? Do high school needs differ from those of elementary schools?

Perhaps the major issue is centered in the health and food requirements of children. Schools have been able to take care of these problems quite well in the past. Have the machines brought any improvement? Certainly the policy on "machines" cannot be waved aside as one of slight importance. The "machines" are on the march. They will not pass out of the picture without a struggle. The task of getting a solution which is fair to the educational system should be a simple one if the problem is faced squarely.

Radio Hams

HAVE YOU EVER SEEN the directory of Radio Hams? If not, you have a pleasant surprise coming to you. Here are listed the members of an unusual society, thousands in number all over the world.

Individuals of all ages and both sexes belong to this Society of the Air. They make their contacts and create new friendships, even across oceans and international boundaries. They learn to know one another through greeting rather than meeting.

This Society of the Air is constantly growing in numbers and importance. The "hams" never rest content until they have brought the world into their reception centers.

All of this activity is "to the good" for mankind in general. It promotes friendships, creates understanding of the problems of others and requires cooperation among all participants. The potential of these aerial communications is beyond calculation. Enlisted for peace in the world, they may cause consternation to the wildest despot.

Hundreds of high school youth are among these "hams." It is a school activity worthy of encouragement. Here is a sphere of educational growth in which the student finds himself a citizen of constantly widening horizons. His provincial concepts become overlaid with an appreciation of the power of science in carrying the messages of his voice to many whom he will never see, and yet many who rate him as companion and friend.

"School Begins"

LIKE ALL OTHER farsighted school executives, Superintendent Charles M. Rogers of Amarillo, Texas, is looking forward to the opening of school in the fall. His compact little brochure, "School Begins," is made avail-

able to all parents of pupils who expect to enter school for the first time in September so that they may understand the spirit of the school. It tells about the things that parents want to know—the school hours, the problems of attendance and health, the parent's understanding of the child's problems, the work of the school and the parents' role in the school program.

The school's approach to the child is defined by teachers and supervisors as follows:

"Entering school for the first time is a major adjustment for most children. For some, it will be an exciting adventure, for others an unhappy experience. . . . Co-operation between home and school will help your child have a happy school life. Get acquainted with the school, the principal, the teachers. Consult them about any problem concerning your child, or any phase of the school program you do not understand. . . . Let us all work together for the best interests of all the children and be understanding, tolerant, wise, sympathetic, and patient."

When we went first to school, our way was not prepared in advance. Of course, that was many years ago. But now, see what happens.

Spring registration locates the child. He may even meet his teacher and inspect his room in advance. The parent and the teacher plan together, so that the first day in school becomes a happy event with all details planned for in advance. How wonderful our public school systems have become. The individual child has become their interest. They work to solve his problems.

Unit Costs of School Buildings

THERE IS NO MORE ELUSIVE MEASURE used in the work of our world than the unit cost per square foot or per cubic foot of school buildings. Such units of measure as the inch, the foot, the yard are fixed and have identical connotations to all. This is not true of "the cost per square foot" of school buildings.

So many variables enter into computations, both as to how the buildings are measured and what cost items are included, that architects and engineers are not prone to consider the figures more than a rough measure. To make a fair comparison, the method of calculation of square footage and the items included within the cost figures must be agreed upon and their accuracy assured.

It is not uncommon to find two workers in the same office arriving at different totals in square footage for a building. If two men, no doubt following the same rules, do not agree, how much difference in calculations can be expected to come from many offices in the several states.

Newspapers have attempted to solve their problem in computing circulation, which measures their success, by having a national organization which computes on a uniform basis and reports the result. Among educators considerable discussion has centered around a need for securing comparable data in the school building and other school cost fields.

The overhead cost of doing such work has been the stumbling block. Here is an important service which an educational foundation might undertake. It would create widespread satisfaction among educators, school architects and school board members. Such a service would fill a long-felt need.



Basketballs are no hazard to this Tuf-flex Daylight Wall at Beresford School, San Mateo, Calif. Architects, Kump and Falk.

MORE FUN OUTSIDE... MORE SUN INSIDE

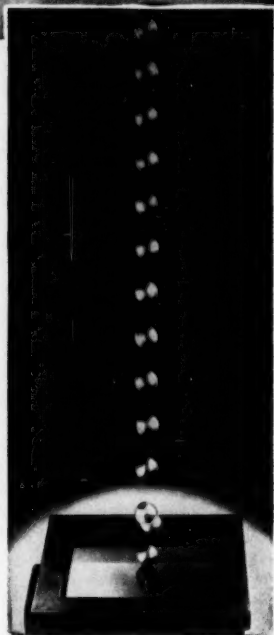
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LOOK AT THIS TEST—>

This shows a half-pound ($1\frac{3}{4}$ " diam.) steel ball being dropped on a piece of $\frac{1}{4}$ "-thick Tuf-flex from a height of ten feet and bouncing off without damaging the glass. If maximum impact resistance is reached, Tuf-flex disintegrates into small, relatively harmless pieces.



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LETTERS

to the editor

Indiana Superintendent Wants More Athletics

TO THE EDITOR: So frequently do we hear the high schools criticized for over-emphasizing athletics that such accusations go unchallenged. I contend that in view of the values received we need not apologize for the great number of athletic activities but rather in most cases for the meagerness of the program.

The fact that the competitor in athletic contests does receive values of considerable importance from his experience as a member of varsity teams is pretty generally accepted; the critics usually confine themselves to decrying the fact that the few perform while the many sit on the side lines undergoing emotional experiences of questionable value. It is not therefore athletics as such that should be criticized but our handling of the program.

In this situation the small school has a tremendous advantage in facilities, personnel, and programs. The small school has at least one gym, one coach, and one inter-school schedule of contests, and in our case in Monticello, Indiana, this is for less than 125 boys in the 3-year senior high school. Some schools have only one gym for many times that number.

For this relatively small number of boys the program of inter-scholastic athletics included last school year nine first team football games, three second team football games, excluding tourneys, sixteen first team and sixteen second team basketball games, and a half dozen each of track, golf, and tennis meets. With the city summer recreation program providing opportunities for participation in baseball, both hand and soft, and with the school in addition providing a program of intra-mural sports there is no need for any physically able boy to graduate from high school without some vital experience in athletics. In last year's graduating class only one boy had been on no team and he was a student manager.

The training in body, mind, and spirit that a boy gets in athletics un-

tainly we need more athletics for many boys.

F. H. GILLESPIE
Superintendent
Monticello and
Union Township Schools
Monticello, Indiana

Take a Sniff in Your Neighborhood

TO THE EDITOR: A friend told me of the following incident in which various community groups joined forces to get action on an unhealthy school situation in their New England town

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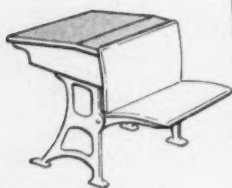
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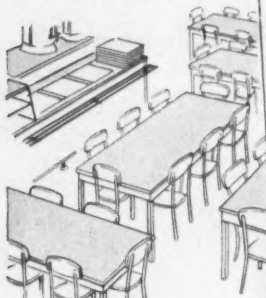
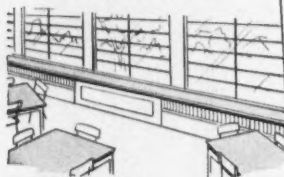
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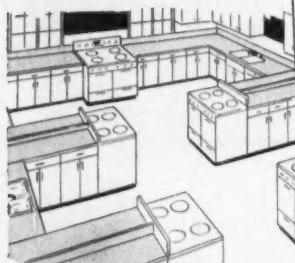
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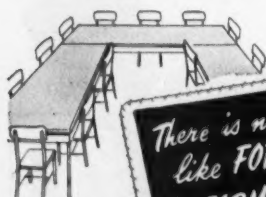
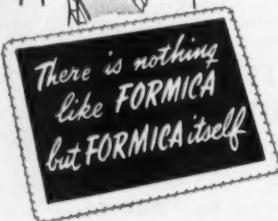
RESURFACE OLD DESKS

CAFETERIA TABLES
AND COUNTERS

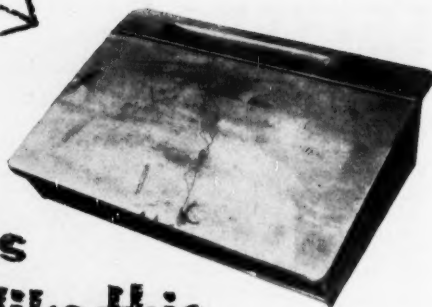
WINDOW STOOLS



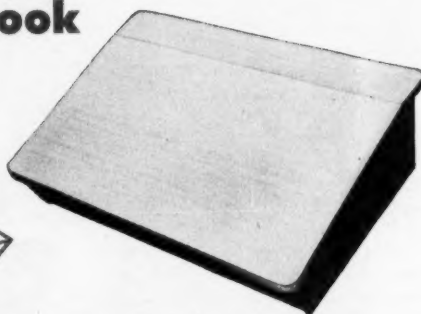
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—which, out of charity, I shall allow to remain anonymous.

It began when a mother we shall call Mrs. Cooke told her husband, "When I took Ellen to school this morning, to see if she could be entered in February, she had to go to the toilet, so I went with her. Good thing I did—the stench in that dirty basement is enough to floor you."

These two aroused parents sparked an investigation that revealed that the school system was built on divided responsibility. The school superintendent was charged with planning the curriculum and securing teacher personnel. Maintenance of buildings and grounds was tied to the Mayor's purse strings. His Honor had been elected six times on an economy platform, and very few seemed to care about conditions in the town, as long as taxes were down.

The Cooke group found, after discussion with the school principal and his superintendent, that both wanted clean facilities but City Hall had them hamstrung. It found that while some powerful influences were bucking the move to improve public education, groups such as the PTA, the Rotarians, Lions, Kiwanians and others were ready to act.

Contacts with the National Citizens Commission for the Public Schools, the Metropolitan School Study Council at Columbia University and the NEA brought information on how other communities had met similar situations. Cooke & Company developed into a community force that made things happen.

First, the Mayor's political influence over school building maintenance and custodial personnel was clipped, and both responsibilities were restored to the jurisdiction of the school superintendent. An impartial survey of the whole school system was ordered, providing for both immediate and long-range implementations of the resulting recommendations.

Best of all, the folks who reached these targets learned that public education is something for which all of us are responsible, and that vigilance and sweat are the watchwords. Without these and some courageous leadership there always will be forces ready to exploit the children.

RUSSELL V. BURKHARD
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Photo courtesy Brush High School, Lyndhurst, Ohio

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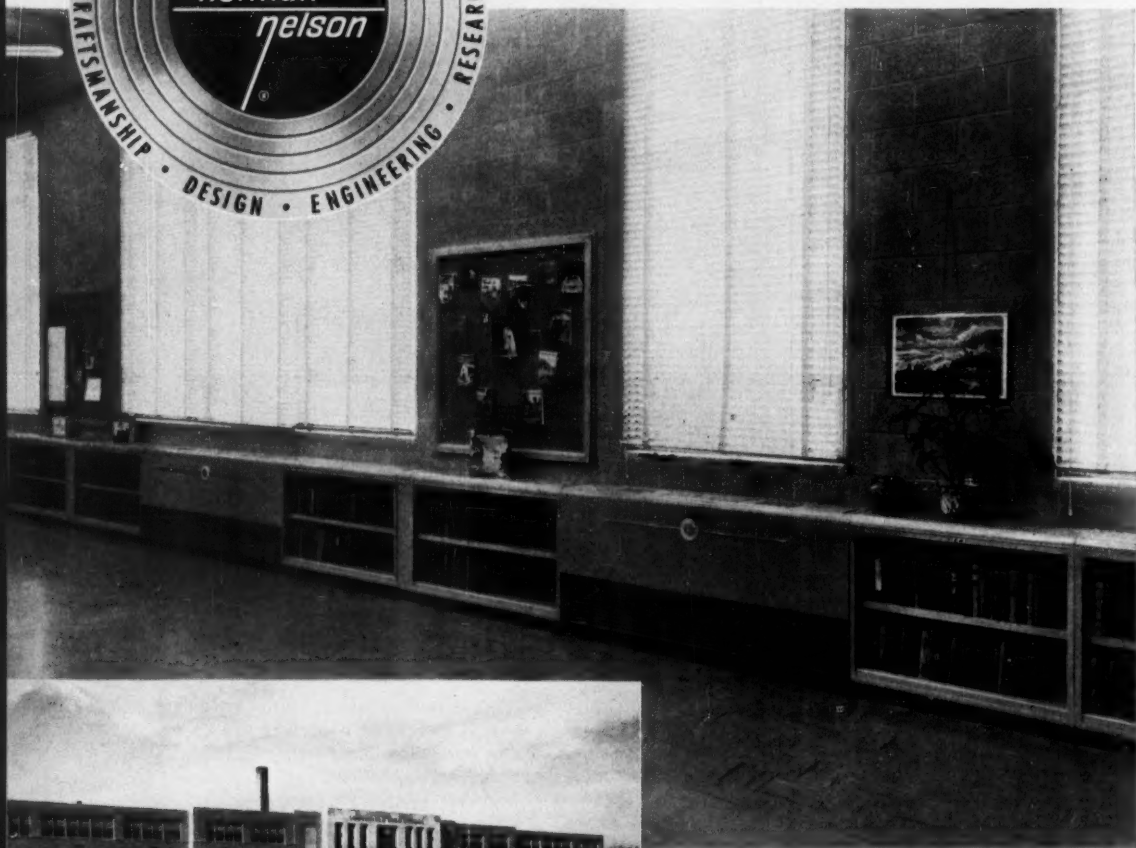
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The photograph above of the interior of the new **Southfield High School**, Detroit, Michigan, shows another fine example of how perfectly Herman Nelson Unit Ventilators are designed to harmonize with modern school architecture. The photo at the left—shows the exterior of this beautiful new school.

*Superintendent of Schools, GLENN SCHOENHALS;
Architect, JENSEN AND KEOUGH; Mechanical Contractor, J. D. NAYLOR AND SON.*

Here's why Herman Nelson Unit Ventilators give better service

Designed as fine furniture—built like a battleship—Herman Nelson Unit Ventilator Products have many quality features not found in other unit ventilators. For example: the beautiful linoleum table-top surfaces are *not* thin felt-backed *but* are 1/4 inch burlap-backed top quality "Battleship" linoleum.

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in Product Serviceability

Herman Nelson unit ventilator products have earned their leadership position because they do a better job with less servicing. And when they need servicing—as mechanical equipment must, they are *easier to service*.

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Let's examine some of the "owner benefits" provided by Herman Nelson:

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When the job is completed—they work with and advise the school custodian on the proper handling of the new equipment. They go over each step in the operation. They supply him with his own Operational Manual.

When the installation is completed—the Herman Nelson man on the job then arranges a meeting with the school principal, teachers and the custodian. He explains, in detail, the simple method of operation—shows them what the equipment is designed to do and what it will do—with normal care. This, plus our generous guarantee, is the standard service offered by Herman Nelson.

If you are planning a new school or a modernization program—it will pay you to compare and then specify Herman Nelson Unit Ventilators—another product of American Air Filter Company, Inc., Dept. SE-5, Louisville 8, Ky. We invite you to write for Bulletin No. 3500.

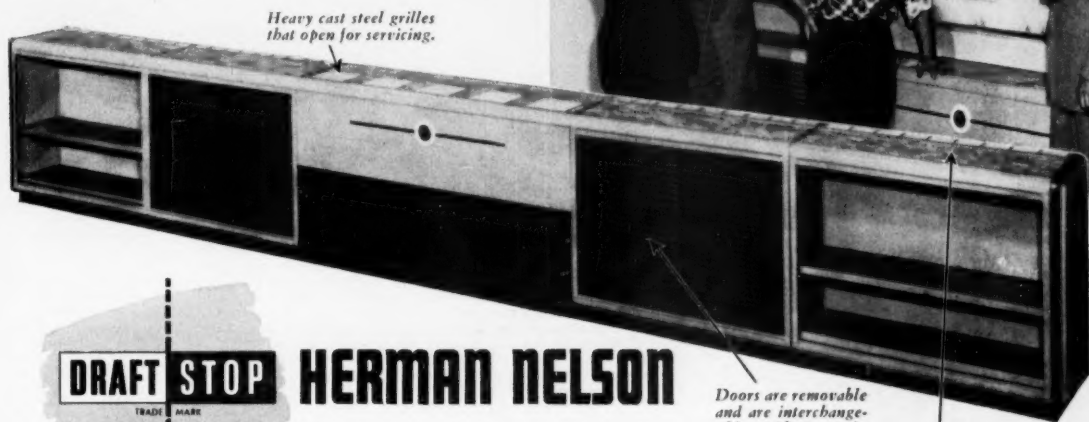


ABOVE: Here's how easy it is to oil the Herman Nelson unit ventilator. Just lift the cast steel grilles for easy access.

BELOW: A view of the unit with the front panel removed for easy changing of the throw-away filters.



BELOW: This is a typical scene in a modern classroom. The Herman Nelson Field Engineer is demonstrating the new Herman Nelson unit ventilator to the school principal, the teacher and the custodian. One of the plus services offered by Herman Nelson.



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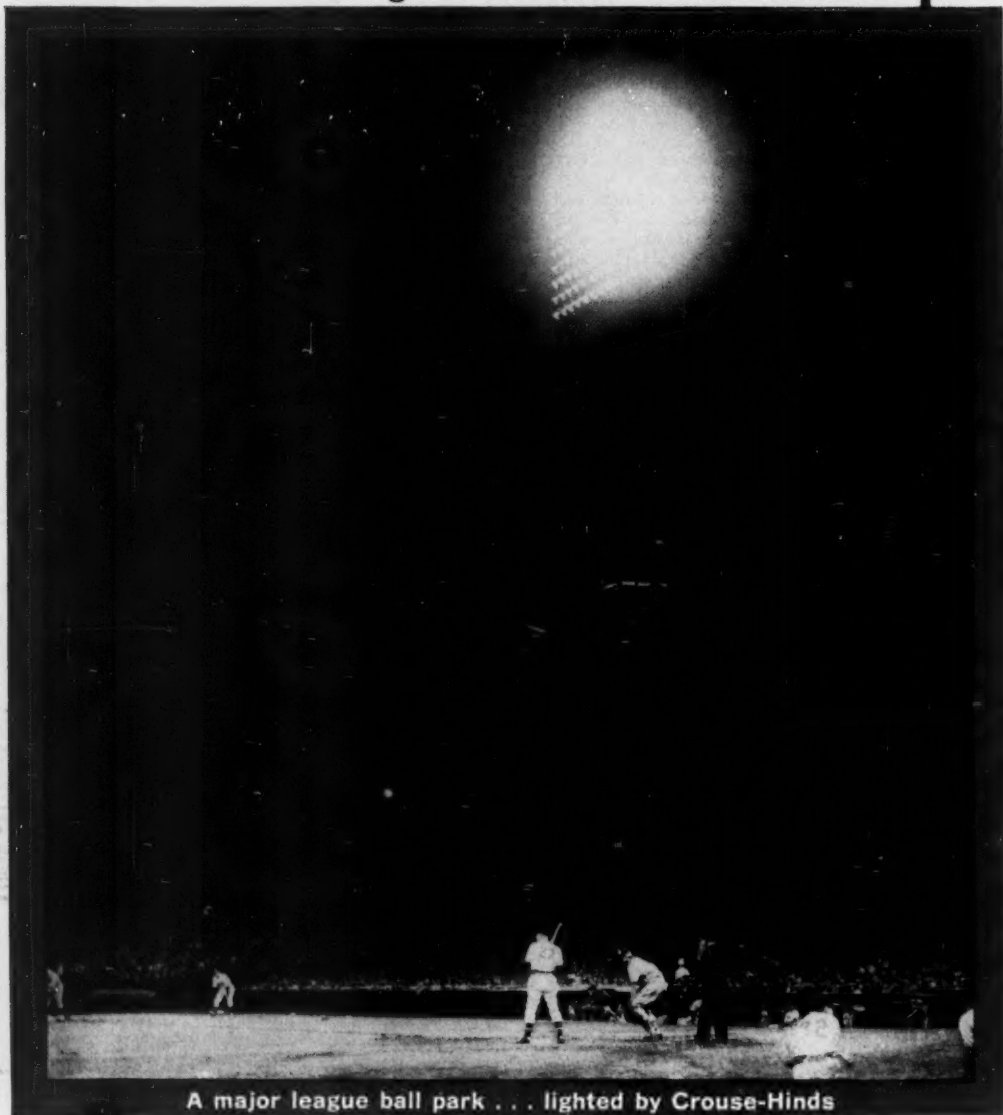
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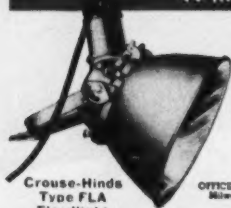
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Next Month:

The Superintendent's Role in Instruction

Citizens Committees and Boards of Education

HENRY TOY, JR.

Executive Director

National Citizens Commission for the Public Schools

WHAT should be the relationship between citizens committees and boards of education? A large part of the answer to that question is contained in a composite piece of advice furnished by hundreds of effective citizens committee leaders and school board members themselves: "There must be sincerity, mutual trust and responsibility, and understanding by all parties of the role that each can and should play."

But even though we have this advice, I wanted to find still other sources of help for the readers of *THE SCHOOL EXECUTIVE*. I took my question to three Commission members.

Richard Joyce Smith, an attorney, was president of the Fairfield Board of Education—where an active citizens committee is at work—and now serves on the Connecticut State Board of Education.

His answer is this: "It is unfortunate, but true, that, as time goes on, the board of education in any community is viewed as a special pleader for town funds. The word of a citizens committee, based upon its own independent study, that the request for funds is reasonable can often swing the tide in the board of finance or town meeting."

"Most of the time the study of the citizens committee will support the conclusions of the board of education. That does not mean that the citizens committee is subservient. It simply is another example to show that, except for those who for ulterior reasons are not interested in schools at all, there is seldom disagreement on what is needed to improve the schools at any given time."

I next went to O. H. Roberts, Jr., an attorney

from Evansville, Indiana. He replied both as a board member and as a spokesman for more citizen interest in the schools.

Give Reading of Public Pulse

"School boards are the 'legal trustees' of the public in school matters," he said, "and they cannot delegate that responsibility, nor can a citizens committee deprive them of it. They do need, however, every means by which they can feel the public pulse on school matters and it is in this area that citizens committees become very valuable."

"Committees can be helpful in guiding public thinking on better school practices and procedures, once a policy of leadership has been reached by the board of education. Citizen committees are helpful for research and fact-finding; again, always remembering that the final decision ought to deal with the facts and must rest with the board."

Another Commission member, Mrs. Samuel A. Lewisohn, answered from the point of view of a member of the Board of Trustees of the Public Education Association—the oldest citizens committee for schools in America—and from the point of view of a member of an advisory committee for the New York City Board of Education.

"The role of citizens committees in relation to boards of education will doubtless take differing patterns in different communities, just as the citizens committee itself in its construction and operation varies depending on whether it has a rural, small town or big city setting. The PEA's relation to the board of education is that of strong

supporter, constructive critic and pioneer in demonstrations."

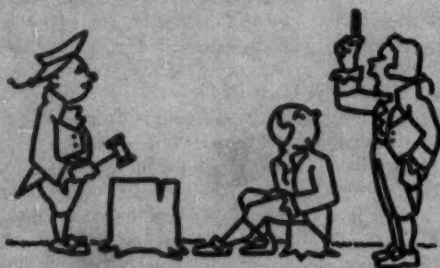
The language is different, but the underlying thought comes through just about the same in each instance. It seems to make no difference whether the expressions grew out of experience with school-sponsored or independent citizens committees. The motivation, sponsorship, organizational pattern and program should not affect the relationships.

All this corroboration of testimony assured me I was on the right track, but I stopped to ask myself a question: "If you, as a member of a citizens committee, wrote the Commission and asked this question, what information would you like to get?"

And I answered that I would like not only theory about the ideal situation, but road maps to reach the ideal. I would like to know the concrete answers to "who, what, where, when and how."

States Confer Local Authority

We talk so much about the local nature of American schools that we sometimes forget that what we really have are state school systems, with considerable authority over the schools delegated to local communities or districts. Historically, there is good reason for saying that local communities—meaning local citizens—have the ultimate responsibility for their schools.



Colonial schools were administered by the town meetings.

In colonial New England a number of communities met in town meetings and assumed the right to establish their own schools. Throughout the colonial period the towns enjoyed relative freedom in running their schools as they saw fit. At first they were administered by the whole community in town meeting. Then, as school affairs became more complex, School Committees (the precursors of the school boards or board of trustees) were appointed to manage the schools.

When the colonies formed a new nation under the Constitution, authority over the schools was reserved to the individual states. This meant that even though many of the states did not exercise their authority immediately, and the local commun-



Gradually the layman was divorced from school affairs.

ities, if they were to have schools, had to establish them on their own initiative, this power resided in the states whenever they saw fit to assert it.

In the years since the Constitution was ratified every state has asserted a large measure of authority over the schools within its borders. Today each state, by law, confers broad powers on local school districts and the school boards which administer them. State legislatures also place explicit limitations on the authority of these boards, and retain the power to alter this grant of power at any time.

This is important to remember and to watch because it affects and modifies the relationship of the school board to the local citizens. Although the board is elected by local voters, or appointed by elected officials, its authority is derived from the state. Of course, the local voter, as a citizen of the state, is the ultimate source of this authority. And, as a voter in school board elections, he can exert a large measure of control over its exercise.

Must Understand Legal Limitations

The school board can represent the local community only within the limitations of the grant of power received from the state. Since each state has granted rather different powers to its school boards—in fact, boards within the same state often enjoy varying degrees of authority—considerable confusion and misunderstanding has developed.

Therefore, each community must become aware of the extent of its school board's authority and of the legal limitations under which it must labor. Then the school board, as the official agent of the state and the community, can more truly represent the informed and sympathetic will of the people in the management of the schools. And, at the same time, the citizens can more intelligently cooperate with the board in the support of the school program.

Since the responsibilities and powers of a board of education vary from state to state, it is important for anyone actively concerned with the schools to know exactly what these responsibilities and powers are within his state. Many state departments of education and state school board

associations have issued manuals for school board members which are a valuable source of this sort of information.

Citizens Divorced from School Affairs

The other half of the question of the role of citizens for their schools is not based on law but grew out of the increasing complexity of school affairs. With each historical change the local citizen was removed one step further from the actual operation of his schools. At the same time, less of the community's social life revolved around the school, and the demands of other aspects of modern life divorced the citizen still further from school affairs. The schools were a going institution which, apparently, needed little attention and many laymen tended to let them go their way.

Post-War Crisis Brought Awakening

Therefore, when the post-war crisis of the 1940's and '50's dramatized the importance of the schools, many citizens found that they literally had to "go back to school" if they were to work effectively for their improvement.

Recently the National Citizens Commission for the Public Schools published a guidebook for citizens organizing to work for better schools. The following paragraphs deal with relationships with boards of education.

"Most people agree that, although no area is too sacred to be studied by a sincere group of citizens, there is a line of demarcation which coincides with the difference between *primary* and *delegated* responsibility.

"A citizens committee can perhaps clarify its proper sphere and function if the members keep in mind the fact that the three-way relationship of educators, school boards and the public at large is like our governmental system of checks and balances: the school administrator is the executive; the board is the legislative body which puts into effect policy prescribed by the public and governed

by law; and the public is the judiciary body, which holds in the long run the absolute power of decision.

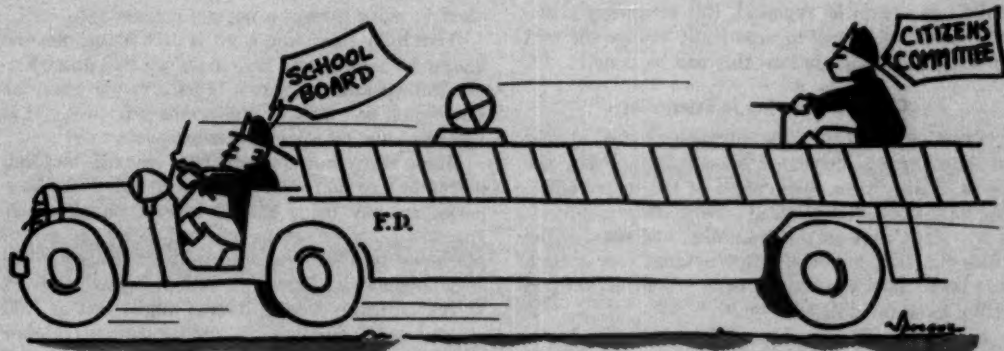
"A citizens committee which represents the community must not attempt to do the school board's job, nor the administrator's. It must **recognize that certain responsibilities** have been delegated to the board, and to the board alone. On the other hand, if those responsibilities are not being carried out, it is the responsibility of the community as a whole to decide at the proper time how they should be re-delegated, for the welfare of the children and the public interest.

"This line of demarcation should be kept always in mind. It will undoubtedly be interpreted differently by different groups because no two situations are alike. At times it may be a purely arbitrary distinction, since the formulation, enactment and implementation of policy sometimes overlap. The important point is that the functions of the lay citizens, the school board members and the professional educator should be clearly understood and agreed upon by all parties."

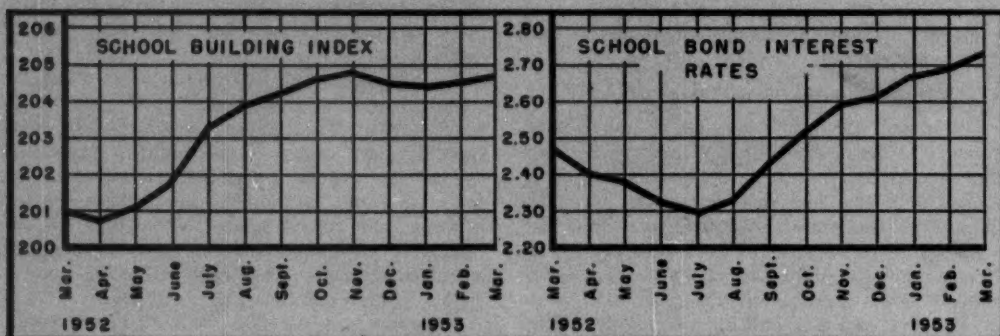
Trial and Error Method

That statement is not a definitive answer. The answer will ultimately come only from the effective working together of citizens committees and school boards. There is no method that we know of except trial and error—but it is a method that has worked time and again in almost every phase of American life.

The burden of responsibility for working with the authorized boards of education rests on the citizens committee. It is that group which should find out what the powers of its board are, what the duties and responsibilities are, and how the committee can help in the exercise of those powers, duties and responsibilities. If that is done, the relationship of a good citizens committee to a good board of education will be one of friendly advisor, colleague and constructive critic.



The citizens committee must only help the school board. Certain responsibilities are delegated to the board alone.



School Building and Bond Prices

HAROLD F. CLARK, Economic Analyst, Teachers College, Columbia University

THE index of school building prices rose in March to 204.7 (1939 = 100). The index in February was 204.5.

The prices of school building materials have been fairly steady recently. Price ceilings have been removed from almost all items, but very few things have advanced. One of these was copper, which increased two or three cents a pound, and many people think it may increase more before its price stabilizes. The price of iron ore has advanced and that, with other things, may bring a small advance in steel later.

The rise in price of building labor shows no signs of stopping. Wages are advancing faster than efficiency in the industry. The result of this situation, if long continued, will be a rise in the cost of school buildings.

The volume of total construction and of school construction remains very near the all-time record. Even the present large volume of school construction is doing little more than providing for the growth of the population. Thousands of school buildings should be replaced. But seemingly someone must find a way to drastically reduce the cost of school buildings before this can be done.

Custom Tailoring is Expensive

Practically every great advance in cost cutting in industry has depended upon standardizing the parts of an article. Some parts of the school building have been standardized: doors and windows in a few sizes, some of the plumbing, and some of the basic building materials. But nothing like enough has been done. Essentially each school building is still a hand-tailored job.

It would be fine if we could have individually designed hand-built automobiles, but they would cost ten to twenty thousand dollars. Few people would

have cars, and cars would get very old before they were replaced. This is the situation in regard to school buildings. They are hand built, very expensive, and get extremely old before they are replaced.

The individual school architect is probably not overpaid on an individual school building. In fact, he may not be getting enough. But that money does not buy the improvement in design and drop in costs that it should. Some way is going to have to be found to get some of it into the research that is necessary to get better school buildings at lower costs.

School Bond Interest Rates

Interest rates on school bonds continue to rise. The average interest rate on all school bonds sold during March was 2.73 per cent, a new high for a great many years. Interest rates are rising on all securities—corporate, Federal Government and schools.

The cause of these rises is clear. The Federal Government has decided to allow interest rates to start to move toward a normal market rate.

How high they would go if left alone, no one knows. It has been so long since we had a market-determined interest that it is hard to tell what the rate would be today. It still seems safe to say that rates are low on a long term basis.

Much the same factors that caused building prices to rise and interest rates to fall for a long period are now being used to reverse the situation. Interest rates are being allowed to go up as one means of stopping the rise in prices. Only careful watching month by month will tell us the result. In the meantime school boards might just as well proceed with building. Interest rates are higher than they were, but at least temporarily the rise in lending prices has slowed down.



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Makes floors extra safe!

All types of flooring take on *extra* safety with Heavy Duty *Hard-Gloss*. It is *not* tacky, *not* gritty. Yet *Hard-Gloss* has greater traction than most "anti-slip" finishes.

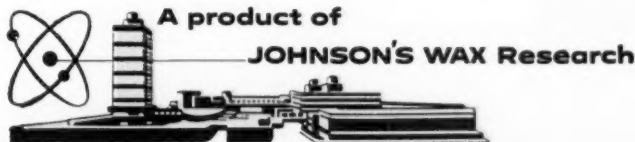
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Durable as *Hard-Gloss* is, it can easily be removed with Johnson's *Floor Cleaner* or Johnson's *Emerel*. No hard scrubbing needed.

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The new Premier, a symbol of modern engineering, utmost safety, dependability and economy.
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Greater strength and greater safety have been accomplished with integrated welded construction.
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The spacious interior is attractive and comfortable. The new Posturized seats are upholstered in the color you choose.
- ★ **DYNO-THERMIC HEATER, VENTILATOR, DEFROSTER**
An exclusive Carpenter feature. With the Dyno-Thermic unit you can Climatize the interior of your school bus.

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Popcorn Machine
is one of the most
profitable investments
our school ever made..."**

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Why don't you find out how a Manley popcorn machine can fit into your school program... make big profits that will help finance many of your school activities or projects. Mail coupon today to find out how Manley supplies everything you need for a profitable popcorn operation in your school.



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<u>School</u>	<u>Position</u>	
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We are proud of the many monuments to purposes
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**ALL PURPOSE
FLOOR MACHINE**



The New Tornado Floor Machine is the finest precision scrubbing and polishing machine you can use.

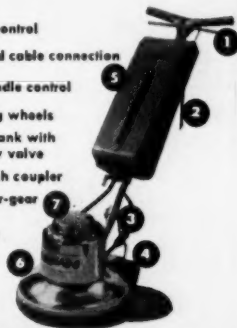
It is the product of years of research, careful design and months of painstaking development and testing by a skilled staff of experienced cleaning equipment engineers.

The efficient operation of Tornado will reduce maintenance time on your floors—improve appearance and add years to their useful life.

Don't fail to get the details of the New Tornado Floor Machine. Just write for Bulletin 619.

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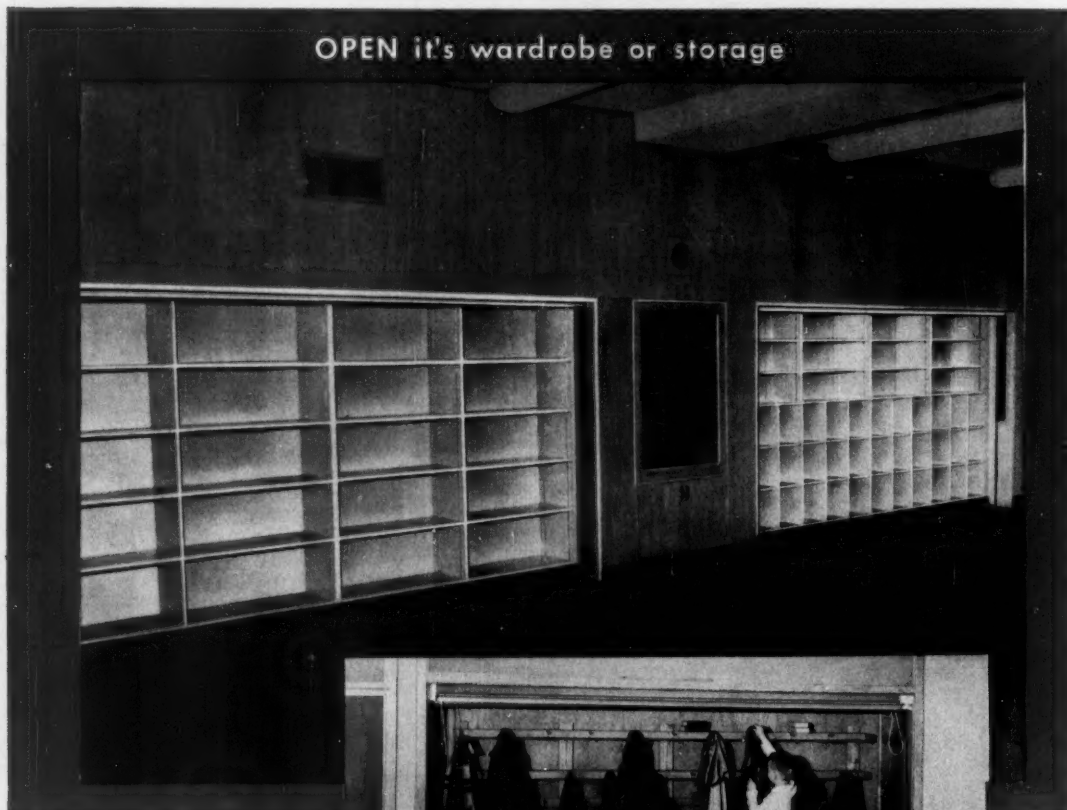


Barcol

WARDROBEdoor

saves space, cuts costs in New Rochelle school

Superintendent of Schools, Mr. Donald K. Phillips; Architect, Mr. Lee Perry; Distributor-installer, Mr. Peter Gasperini



HENRY BARNARD SCHOOL addition (above) at New Rochelle, N. Y. illustrates unusual flexibility of Barcol WARDROBEdoors when used with specially designed cubicles and storage shelves. Note how every inch of space is fully utilized. Continuous shelving and books (right) are standard equipment included in basic price—around \$500 in most areas.



ARCHITECT LEE PERRY, New Rochelle, N. Y., reports that in designing the Henry Barnard School addition, it was necessary not only to conserve space but also to *get the most use out of the area available.*

"After giving due consideration to alternatives," writes Mr. Perry, "we decided to use Barcol WARDROBEdoors so that all the space allocated for wardrobes was useful without being cluttered up by doors swinging in or out. The installation has been very satisfactory, and I recommend them for any school or institution."

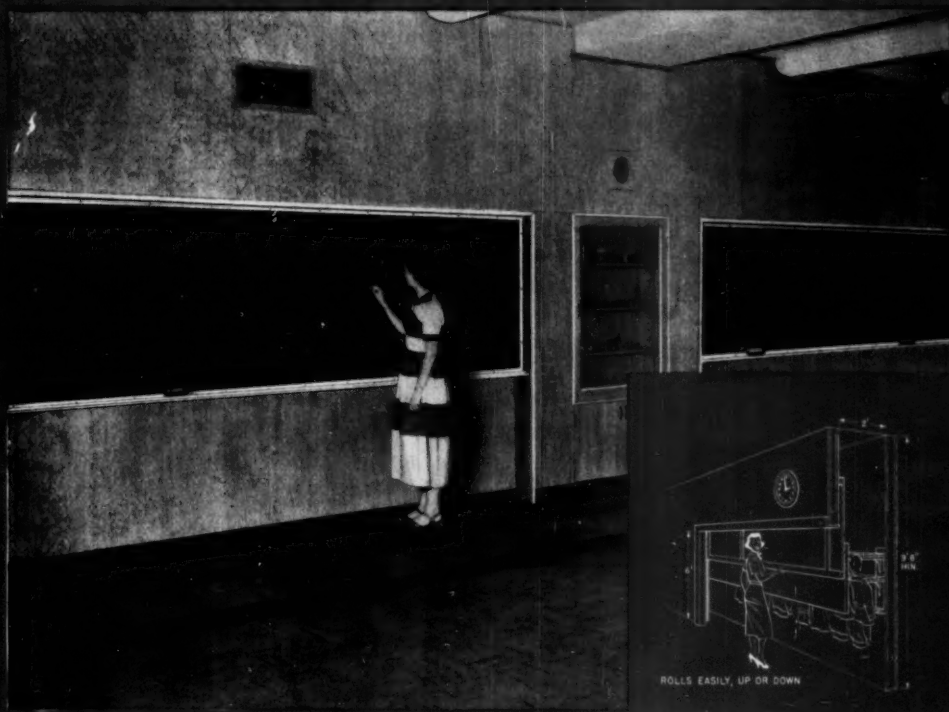
School officials and school architects everywhere are finding that Barcol WARDROBEdoors effec-

tively save up to 15 square feet per room while providing more working wall space for chalkboard or tackboard. Full-view opening eliminates "mischief areas," and cleaning is easier because floor is completely clear of hardware or fittings.

Barcol WARDROBEdoor dimensions are 10' or 12' wide and 6' high, requiring only 9'6" ceilings (3'6" above opening). Depth can be as little as 24".

Eleven Barcol WARDROBEdoors were used in the Henry Barnard School . . . other installations have used as many as 16, 20, or even 24. Most are installed in classrooms, but some use hallway space. Ask your architect for full information or send coupon today.

CLOSED it's chalkboard or tackboard



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Dept. NH35: I'd like to know more about the Henry Barnard School and details of Barcol WARDROBEdoors.

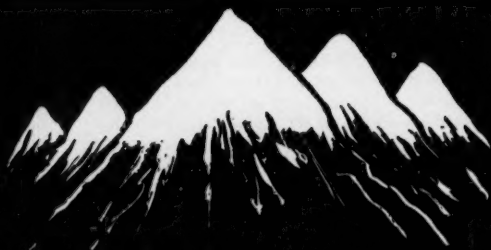
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500 watts

**COMBINATION
Slide and Filmstrip
PROJECTOR**

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No projector is better than its cooling system and Viewlex is the COOLEST projector made! The exclusive "Venturi-Airjector" breaks up the insulating barrier of heated air, which stubbornly surrounds the lamp, and forces a constant flow of fresh cool air directly against the lamp itself.

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Specifically designed and engineered for 500 watt projection lamp, yet delivers super-brilliant screen illumination which actually exceeds the illumination delivered by ordinary projectors with 750 watt lamps! The exclusive LIGHT-MULTIPLIER optical system plus automatic condenser alignment for perfect focus every time — provides the sharpest pictures ever seen! Each condenser is coded and individually mounted for ease in cleaning — just another indication of the quality that is built right into Viewlex projectors.

One projector projects both single and double-frame filmstrips, vertical and horizontal 2x2 and bantam slides. Professional quality 3", 5", 7", 9", 11" projector lenses can be used instantly.



Getting a head start on success!

Brazosport Senior High School, Freeport, Texas, has found that using IBM Electric Typewriters gives beginning students a feeling of instant success. Professional-looking results at the very first touch of the keys send enthusiasm up . . . keep the desire for progress at a high level, all through the course.

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Bring the classroom-proved advantages of IBM Electric Typewriters to your school now.



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"THE TEACHING TYPEWRITER"



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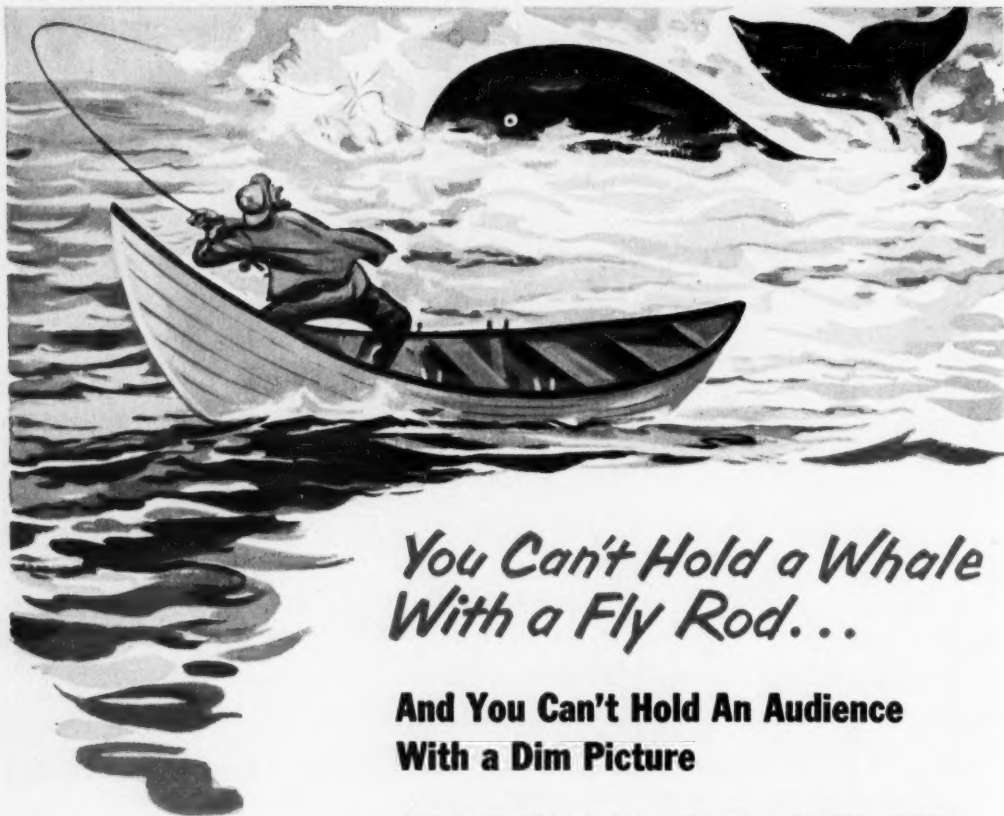
- ☐ Please send booklet, "Electric Typewriters in Education," and latest classroom results.
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IF YOU EXHIBIT 16mm FILMS TO 100 OR MORE PEOPLE, you can't *possibly* provide optimum screen illumination by any means except the carbon arc. And the "National" carbon arc for 16mm projection is 4 times brighter than the next best light source.

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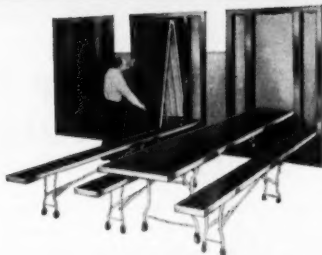


Schieber, originators of 'In-wall folding tables and benches, now offer a second style. The economies of multiple-use-of-space are now available to all schools regardless of budget or special requirements.

ALL-STEEL CONSTRUCTION

In-wall

RIGIDLY ATTACHED TO WALL POCKETS



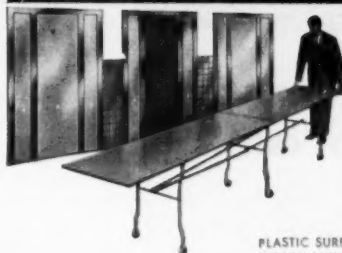
Here is genuine quality that has stood the test of time. Since 1937, more than 500 architects have specified thousands of these units in schools from coast to coast. With full knowledge of the rugged use they receive Schieber puts into their construction the best in workmanship and materials. Sound policy? Schieber IN-WALL users have no service problem.

Unless you foresee the need of detaching tables and benches from the wall, specify IN-WALL and get the extra rigidity and quality it offers as compared with detachable units.

PLYWOOD TOPS—STEEL LEGS

Port-a-Fold

DETACHABLE FROM WALL POCKETS



PLASTIC SURFACED
TABLES AND BENCHES

This is a low cost, plywood top, version of IN-WALL, yet many of the important quality features of IN-WALL are incorporated in its design. With 15 years experience building folding tables and benches, Schieber knows exactly where strength is needed. No castings are used in Port-A-Fold and reinforcements are provided where necessary to absorb the abuse of daily operation.

If conditions require various seating arrangements or your budget is restricted, specify this unit.

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SCHIEBER SALES COMPANY

a name that
has always stood
for highest quality
in folding table
and bench
equipment.

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Why Supt. Dr. Eric Baber of new Rich Township High School selected desks topped with G-E TEXTOLITE*

YOU'LL find it practically impossible to chip, gouge or stain rugged G-E Textolite — pencil marks, ink spots are easily wiped off — it is practically maintenance free. Its smooth hard surface is perfect for writing — it is designed with near perfect light reflectance qualities. You have a wide choice of colors and patterns.

Yes — when you compare the many advantages of G-E Textolite topped desks with old-fashioned wood tops — there can be only one choice — G-E Textolite.

G-E Textolite offers the same advantages for re-surfacing old desks. You can get many more years of life from old desks by topping them with G-E Textolite.

Ask your nearest Roddiscraft warehouse for complete information about installation.

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RODDIS PLYWOOD CORPORATION
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G-E TEXTOLITE

Mar and scuff proof

Stainless

Wears like iron

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Encourages neat work

Available in a wide range of wood grain patterns and colors.

*Reg. U. S. Pat. Off.

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N. J. • Philadelphia 34, Pa. • St. Louis 16, Mo. • San Fran-
cisco 24, Calif. • San Leandro, Calif.



Why is it so easy to teach on the new Royal Standard?

ROYAL STANDARD has always been a preferred typewriter by teachers and students alike because of such features as . . .

. . . scientific positioning of keyboard and controls, "Magic" Margin, "Touch Control," and all the famous Royal advantages.

But now comes the *new* Royal Standard, and it offers you all these features and several *more*.

1. "Magic" Tabulator. A roll of the hand, without moving fingers from the important guide-key positions, activates the "Magic" Tabulator. Speeds teaching of tabulation.

2. Carriage Control. Synchronizes carriage speed and type-bar action. A twist of the knob adjusts carriage speed for normal typing, or for stepped-up speed spurts or columnar tabulation.

3. Time-saver Top. A Royal exclusive. Press button . . . inside controls all instantly accessible. "Touch Control" within easy reach. Easy-to-get-at spools for ribbon changing.

You can see at once why the new Royal Standard is now more than ever the typewriter preferred by teachers and students.

Why not ask for a classroom demonstration?

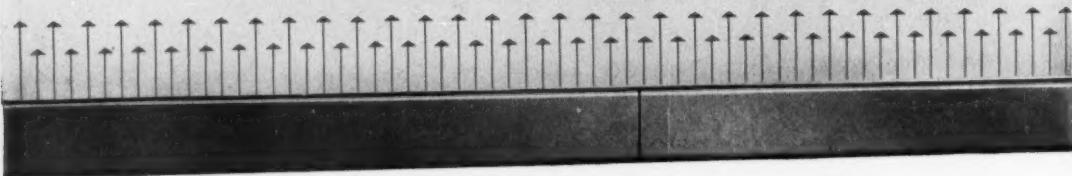
STANDARD • ELECTRIC • PORTABLE

ROYAL

Roytype Carbons and Ribbons

"Magic" and "Touch Control" are registered trade-marks of Royal Typewriter Company, Inc.

NEW! Trane Unit Ventilator 40-foot blanket of **FORCED,**



HEATS MORE EVENLY ...ends cold corners

VENTILATES MORE UNIFORMLY ...ends stale spots

STOPS DOWN-DRAFTS CONSTANTLY ...ends window chill

No other unit ventilator ever built can blanket the entire outside wall with a forced upward flow of tempered air, providing better heat and air distribution and also protecting children from down-drafts, even when the heat is off!

Big news! A really basic engineering improvement in unit ventilator development . . . the new TRANE Unit Ventilator System! Architects, engineers, contractors, manufacturers and school boards have long agreed that the ideal unit ventilator would blanket large window areas with a *continuous*, forced stream of tempered air.

Now TRANE product engineers have actually built a unit that accomplishes the ideal . . . *constant* perimeter

heating with individual unit control. Now you can have a classroom ventilator that will stop window draft with an upward moving blanket of tempered air. Do it *every minute* the room is occupied. Do it quietly.

Here's how it works: Part of the warmed air delivered by the new TRANE Unit Ventilator is forced out through two wings. This scientifically designed, easily installed ductwork distributes air uniformly along the entire wall. Special fans in the unit ventilator keep this air under pressure . . . forcing it *constantly* and *evenly*, even when the thermostat calls for no heat. Yes, it protects school children from drafts *even when the heat is shut off!*

The new TRANE Unit Ventilator blends room and outside air, tempers it with just the right amount of heat, and distributes it *evenly* throughout the room . . . eliminates cold corners and stale air spots for good!

No other unit ventilator system can deliver such constant, even distribution of heat and ventilation air . . . plus complete protection against window drafts.

For more details, contact your TRANE sales office, or write TRANE, LaCrosse, Wis.

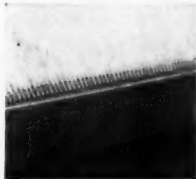
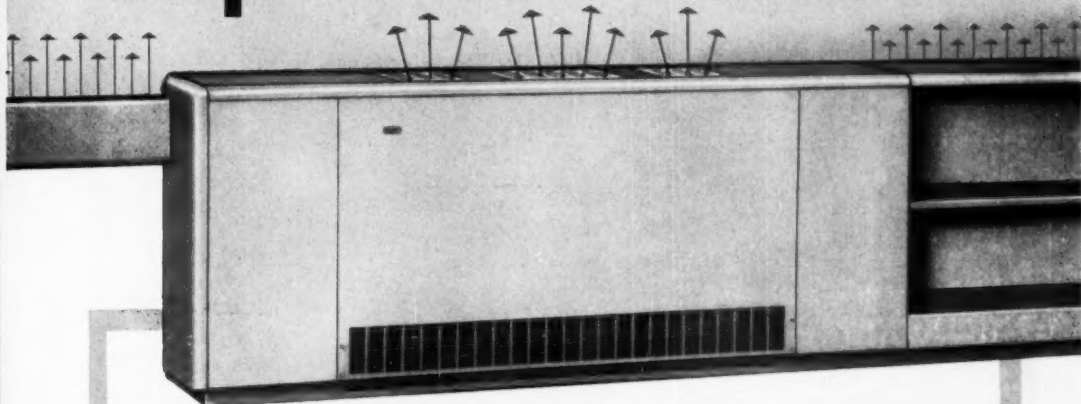


New TRANE

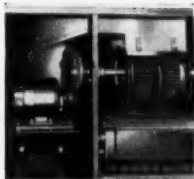
MANUFACTURING ENGINEERS OF HEATING, VENTILATING AND AIR

THE SCHOOL EXECUTIVE

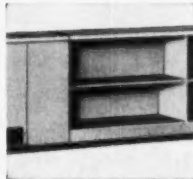
delivers continuous tempered air *[even when heat is off!]*



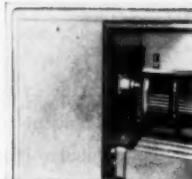
Laboratory photo of smoke test shows how this new idea works. Blanket of warm air moves upward from ducts in an even, solid stream. Drafts can't penetrate. Ducts come in 5-foot lengths, with a maximum extension to 15 feet from each side.



Exclusive fan, motor arrangement. Low velocity fans deliver air out through ducts, others move air through top of unit. Exclusive shaft and bearing assembly assures quiet operation. Standard motor, rubber mounted to stop noise.



Shelving optional—the new TRANE Unit Ventilator's ducts fit neatly into handsome, easy-to-install, bolt-together shelving. You can choose standard units in either open or closed shelving with a continuous, smooth top surface.



Removable panels—give easy access to all 3 sections. Front of each fan scroll detaches for easy cleaning. Filters are easy to replace or clean. Controls can be adjusted with panel in place, with unit in operation...a TRANE exclusive.

A great addition to TRANE's complete line of school heating and ventilating equipment



Centrifugal Fans



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Unit Ventilator System

smothers every inch of draft...every minute of the day!

CONDITIONING EQUIPMENT The Trane Co., La Crosse, Wis. • East. Mfg. Div., Scranton, Pa. • Trane Co. of Canada, Ltd., Toronto • 80 U.S., 14 Canadian Offices

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modern school
seating adds
comfort to
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Griggs Skyliner chair desks are built to give maximum comfort to all students. These chair desks are proportionally-designed so that every student can read, write, and sit comfortably. They are made in three sizes, 13", 15", and 17" seat heights, and the desk top is easily adjustable to assure each student the right height. These chair desks also provide ample storage space in the convenient book box under the seat.

The Skyliner tablet arm chair provides comfort, beautiful appearance, and durability for classrooms and study halls. All Skyliner seating is available in a choice of five attractive colors.



Skyliner No. 520 Tablet Arm Chair

Griggs Skyliner chairs are exceptionally strong, rigid, and light in weight. They are available in four seat heights with the seats and backs scientifically curved for maximum comfort and to encourage correct posture.



Skyliner No. 540 Chair

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MANUFACTURERS OF SCHOOL, CHURCH, AND THEATRE SEATING

Request Griggs Seating catalog for full information on classroom seating!

Headmaster Praises Multi-Clean Method for Gym Floors

**Hard, Gleaming Surface
Safe, Non-Slip Footing
Minimum Maintenance**

The Multi-Clean Method, applied to this floor, gives it a long-lasting gloss... keeps it in tournament shape. Multi-Clean Gym Finish excels or meets all specifications established by the Maple Flooring Manufacturers' Association.



● A report from the Headmaster of a leading Midwestern prep school stated that the Multi-Clean Method applied to their gym floor resulted in greater gloss and durability, better safety and sharply reduced labor and maintenance costs.

Applied to gym floors, the Multi-Clean Method resists rubber burns, makes a tough, gleaming surface. Since it provides fast, slip-free footing, it helps prevent accidents. Maintenance costs are negligible, because only periodic sweeping or vacuuming is needed between annual applications of Multi-Clean Gym Finish. A light buffing removes heavy rubber marks.

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"Your Floors and How to Maintain Them," a ready reference manual for every type of floor is now available upon request. In it you'll find detailed instructions for the proper care of wood, concrete, asphalt and rubber tile, terrazzo, magnesite and linoleum floors. It will show you how to keep floors safer, looking better, wearing longer. Send for your copy today.



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Please send me your FREE Maintenance Manual for all types of floors, also information on equipment checked.

☐ 9-Job Floor Machine ☐ Wet-Dry Vacuum
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LESSON IN SIMPLE ARITHMETIC



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Architects: Davis, Dunlap & Carver

IT'S SIMPLE ARITHMETIC and good sense, too.

ALUMINUM WINDOWS in your new school buildings will save important maintenance dollars year after year. They operate without trouble. They never need painting or costly repairs. They cannot rust or rot. They remain beautiful for the life of the building.

With labor and maintenance costs continually climbing, more and more school boards and administrators are insisting on money-saving aluminum windows for all new buildings and additions.

"Quality-Approved" aluminum windows are available through many manufacturers in sizes and styles that fit any plans (double-hung, casement, projected and awning). All that carry the "Quality-Approved" Seal have been tested by an independent laboratory and approved for quality of materials, construction, strength of sections and minimum air infiltration.

For detailed information and names of manufacturers, consult Sweet's Catalog (Section 16 a/ALU) or write for free copy of Aluminum Window Specifications Book. Address Dept. SE-5, Aluminum Window Manufacturers Association, 74 Trinity Place, New York 6, N. Y.



INSIST ON *Quality Approved*

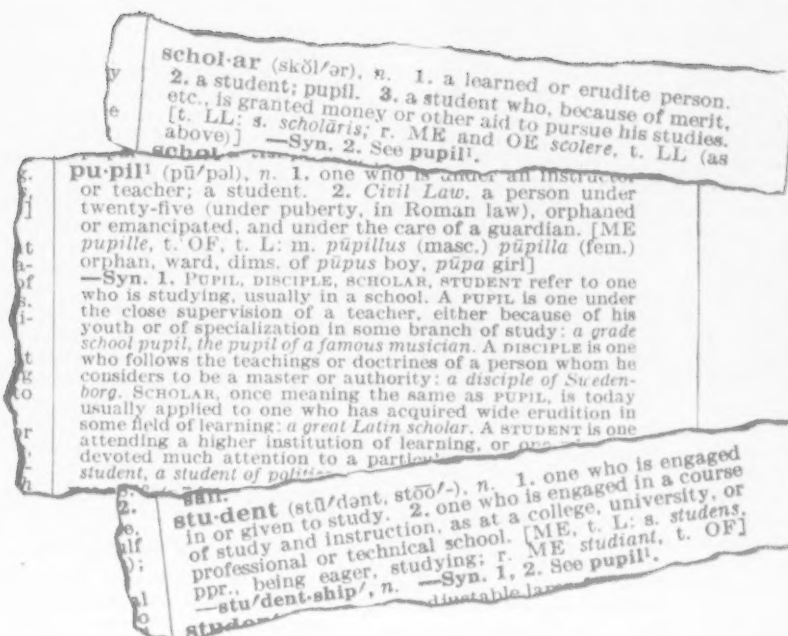
ALUMINUM WINDOWS

DOUBLE-HUNG

CASEMENT

PROJECTED

AWNING



don't
look
now,
but . . .

Your Vocabulary is Showing You Up

by C. M. DANNELLY

Clarence M. Dannelly, who has formed words into articles on many previous occasions, here offers some thoughts about words themselves. He is Superintendent of Montgomery Public Schools, city and county, Montgomery, Ala.

WHEN I completed my studies at "normal" school in the early years of this century, I was awarded the impressive degree of "Bachelor of Pedagogy." With the passing of the years I have fewer and fewer confrères, for the graduates of what are now called "teachers' colleges" are currently designated "Bachelors of Education."

It occurred to me recently, as I pondered this change, that while educators are generally regarded as a conservative bunch, they have been quite remarkably flexible as regards changing their professional vocabulary to reflect changes in concept and practice.

As is usual in matters of progress, however, the advancing front is a ragged one. Many alert educators are in the vanguard, accepting both new concepts and practices and the sig-

nificant changes in terms used to describe them; some educational leaders gradually accept new ideas, but continue to use old-fashioned terms to refer to them; others reject progressive concepts but present a veneer of conformity because they use the new terms; still others, of course, reject both progressive ideas and modern terms.

We might compare these four groups to four mothers. One wants her growing son to be independent, and drops "Bobby" for Bob or Robert at the earliest opportunity. The second mother also recognizes that her son is growing up but never realizes how incongruous and misleading it is for her to call the six-foot young man by the pet names of his babyhood; the third mother may refer to her equally mature son by the most formal form of his name,

while still using every device to keep him dependent on her; finally there is the mother who refuses to acknowledge that her children have a right to independent existence, and calls them "sister" or "Bobby" or "my boy" long after they have children of their own. Among both schoolpeople and mothers, the third group is perhaps the most pernicious, for in many cases the apparent conformity of its members saves them from reprimand from those who would point out the necessity for progress. Perhaps a quick look at some different types of changes in educational terminology will help you determine into which group you fall.

Egalitarian Influences

The growth in the early United States of concepts of equality and democracy ushered in a whole group of changes in practice and terminology, among them my initial illustration of the disuse of the term "pedagogy," which is today replaced by "instruction" to convey its narrow sense and "education" to convey its broad sense.

We are all familiar with the changes in the school system which followed acceptance of the proposition that children of all classes should be educated. At the time of the passage of the famous Massachusetts law of 1647 requiring every town of 100 or more householders to provide a grammar school, the orthodox course of study in the first seven or eight

grades of school included enough formal material to justify the name "grammar" school. The four or five grades beyond the grammar school also deserved their name "academy" or "preparatory school" because of their original emphasis on the classical course of study. However, as preparatory schools became no longer exclusively preparatory for college, but prepared also for gainful employment, and "grammar" schools as well included more activity programs and life-related courses, they became gross misnomers.

Although laymen cling tenaciously to the term "grammar school" and public high schools retain such names as "Valley Free Academy," the generally accepted terms are now "elementary" for the first six grades, "junior high" for seventh, eighth and ninth grades, and "senior high" for tenth, eleventh and twelfth.

I doubt that you refer to your teachers as "professors," but the term was correct at a time when instructors on the secondary level directed students in rigidly specialized studies. Presently the term "teacher" suffices, and most teachers dislike the older term. "Professor" is limited properly to a subject specialist such as a college professor dealing with a particular area of knowledge.

For the same reason, secondary school pupils at one time deserved the title of "student" or even "scholar." Today "pupil" is generally regarded as the more meaningful term, although many people still refer, per-

haps jestingly, to small children in public schools and even Sunday Schools as "scholars."

Currently the influence modern psychology has had on educational theory and practice is working changes in educational terminology. In the decades following the time when small boys were "little men" and tiny girls were "little women"—and were expected to act as such—the pendulum took such a swing in the direction away from responsibility that the term "child" or "children" was applied to all school pupils, including high school youth. Now a better understanding of growth processes, psychological as well as physical, suggests the wisdom of using a term between the two extremes. Young people from 12 through 16 are neither young adults nor large children. Whatever their physical appearance, psychologically they are "adolescents" or "youth," and rightly dislike being called "children."

Train Dogs, Not Teachers

The trend away from dogmatism toward equality and cooperation is very evident in the ways in which teachers themselves prepare for their work and keep abreast of it. I have mentioned the change from "normal" schools to "teachers' colleges." There is another significant change in terminology that distinguishes the two. In the early days prospective teachers were "in training." This indicated the mastery of technical procedures or formulae for instruction which centered largely in the mastery of subject matter.

The steps in the Herbartian method are illustrative of this point. One could be "trained" for the logical order and formal presentation of subject matter. Today, however, the work of the teacher is broader and more meaningful. "Preparation" is



◀ The influences of democracy and psychology make the relationship between teacher and pupil different from that of pedagogue and scholar.

In the days when even small children were "scholars," subject matter justified the name "grammar" school.



the more satisfactory form for a course of study which includes an understanding of life growth and techniques for guiding the growing person to a desire for an increased knowledge and the achievement of a mature personality. Literally speaking, animals may be "trained" but teachers as people are "prepared."

Another illustration of psychology-influenced changes presently occurring and in process of acceptance is the current use of "workshop" for what has previously been the "institute." While we still have institutes featuring authoritative speakers on given subjects, the trend is to "workshops" where teachers and administrators sit down together with supervisors and consultants in working on problems which they mutually face and must solve cooperatively.

Agreements on statements of philosophy, courses of study, system-wide policies and practices are reached in workshops, but these are subject to some deviation in part at the local school point of application in the light of particular situations.

The popularity of the workshop points up the increased individual responsibility of teachers and administrators, who now work out ideas among themselves, rather than following the paternalistic pattern of going to the font of wisdom to get information and philosophy to be passed on as a whole.

This coining of words and phrases more clearly to describe changed practices is not an automatic process, and we must be on the alert for instances where old terms are still used when they are meaningless or even misleading. This is the case today with "report cards." The report cards which the parents of today's school children knew in their youth—pasteboard rectangles which firmly affixed a numerical value to achievement in each different subject

—are little used today. They have grown into letters to parents, into complex documents covering aspects of development which were not considered in earlier days, and in some instances have been replaced by whole folders full of material which teachers and parents talk over together.

"Report" is perhaps a meaningful word as regards these devices for recording and communicating to parents pupil progress, but it is so largely identified with the out-moded "report card" that a new term is urgently needed.

Conversely, I can think of at least one instance where a meaningful term has preceded a useful practice. This is the common phrase "practice teaching."

Teaching Practitioners

"Practice" teaching is presently experienced by young people in preparation for teaching. Perhaps the teaching profession could profit from the medical profession in the use of this term in applying it to the teaching experiences carried on into mature years. The doctors "practice" medicine throughout their careers. Why could not teachers profitably follow a "practice" procedure as long as they teach?

This idea would tend to prevent a teacher from having definitely closed his mind to newer, experimental, and perhaps improved instruction. He would always "practice" teaching just as doctors "practice" medicine in the expectation that experiments and research could and perhaps do

produce better ways of practice. Teaching is perhaps never perfectly achieved; it becomes either better or worse in proportion as it is successfully "practiced."

This list of changes in words to describe newer concepts and practices is not exhaustive but illustrative. It is hoped that the profession of education may continue to manifest vitality and improve its vocabulary. Each reader can, no doubt, supply from his own experience instances of a breakdown in communication due to a misunderstanding of the meaning of a given term.

There is another value in an up-to-date professional vocabulary, which we indicated earlier. In psychology there is a concept of "reduced cues." This means, for instance, that because of your experience with cats in different situations, when you see two almond-shaped eyes glowing at you out of the dark at cat-level, you say to yourself, "there's a cat." You recognized it by the aid of greatly reduced cues.

Similarly, rightly or wrongly, facility with language is one of the things by which a school administrator is judged. Lacking complete information about a man's background and accomplishments, laymen and other educators are very likely to judge you by "reduced cues"—the cut of your suit, the shape of your moustache, and your choice of words. Make sure that you follow the Mad Hatter's advice and not only "mean what you say" but "say what you mean."

operating on the principle that

"the truth shall make ye free,"

this junior high teacher developed...

A STUDY UNIT ON NARCOT

by LEONARD H. FRIED

"DON'T be chicken"—"Everybody does it"—"Be a man." These are the appeals used by the dope peddler who specializes in making addicts of teen-agers. For adolescents, naturally gregarious and anxious for recognition, above all afraid of being "different," they are powerful appeals.

Thomas Knowlton Junior High School is a boys' school located in the center of a low socio-economic corner of the Bronx that has experienced an alarming increase in the use of narcotics by teen-agers; under the guidance of our principal, we undertook to meet the challenge of the dope peddler.

Spotlighting the drug menace in one way or another is not new in our public schools. We realized that new and more interesting approaches to the problem would be necessary to combat the sharp rise in the illegal use of drugs by adolescents since the end of World War II.

What with the wide publicity the narcotics problem was getting at the time, it was easy to interest one of my ninth year classes in a study unit which would highlight the dangers inherent in drug addiction, not only for the pupils but for their parents and the community at large.

We approached the unit through the experiences of the members of the class. Almost all of them had known people who had become addicts. Many of them had been tempt-

ed by the drug. A large newspaper picture of a frightened boy injecting himself with heroin helped to elicit from many pupils reports on their own experiences and observations.

Correlation with other subject fields became necessary as well as desirable. The medical consequences of addiction were highlighted in the science and hygiene periods. Here, the socially desirable uses of barbiturates were also stressed.

Mathematics provided opportunities for the compilation of statistics concerning the problem. For example, the pupils were able to determine that the average addict needs over \$5000 a year to supply his needs. Library periods were devoted to research on the topic. Social studies work concentrated on sources of supply, governmental efforts to combat addiction, and social and economic consequences of addiction. English, of course, served as the tool subject.

Since the problem was within their experience, the pupils needed no urging to bring to the community the knowledges and skills that they were acquiring in school. Committees set to work exploring the best avenues of publicity. Posters emerged from their art class. The suggestion of one committee that the class print illustrated leaflets for community distribution was enthusiastically received.

It was decided that these leaflets were to be put into mailboxes rather

Mr. Fried is a teacher at Thomas Knowlton Junior High School in The Bronx, New York, New York. His article tells how this school took a red-hot issue by the horns.

To adolescents, unsure of themselves but eager for recognition and acceptance, the appeal of the drug peddler who insists "everybody does it" is powerful.

ICS



than handed out on the street. The class felt that people would probably have ample opportunity to study them while examining their mail.

Special committees were set up to write and illustrate the leaflet and print it in the school's Graphic Arts shop. It was designed for two-color printing and pupils made linoleum block cuts to run in red, the text running in blue. Since over 50 percent of the area's population is Puerto Rican, the leaflets were printed in Spanish as well as English.

Another committee planned the distribution on a street guide map of the community which a social studies class had made the term before. Groups of two and three boys were assigned specific blocks so as to avoid any overlapping in the distribution.

Sending the boys out into the neighborhood on their mission was not difficult. The boys felt that what they were attempting was important and enthusiastically welcomed the opportunity to "do something" about the menace that threatened their community. However, they set out cautiously, not sure of the reception they would receive from their neighbors.

They came back with the knowledge that they were doing a job that needed doing, for their reception in the community had been warm and sincere. There was the proprietor of a beauty parlor who offered to pay the two boys who had asked permission to post a few leaflets in the win-

dow of her shop. And the many housewives who could scarcely believe that boys would spend their time in distributing leaflets.

Many people had offered suggestions, some of which were accepted by the class after a debate on their possible usefulness. All in all, the distribution of our first leaflet had been a great success.

Rally Draws Crowds

As the culmination of our study unit, a neighborhood Anti-Narcotics Rally was planned, to take place in the school auditorium. Immediately new committees were organized and assigned to the many tasks that had to be accomplished; letters inviting speakers and other guests had to be composed; a play was written and roles in it assigned; scenery had to be designed and built in the wood shop; two new leaflets were drafted, printed and distributed; community groups such as the P.T.A. and the Boy Scouts had to be notified; and a program planned and printed. There was a great deal to be done, but the Knowlton young men welcomed these tasks.

On the evening of the Rally the class welcomed almost three hundred of their neighbors in the auditorium of the school. We were fortunate in obtaining much additional publicity. Only the previous day the New York *Post* in its Bronx edition had headlined what we were doing with a

front page picture and story. "Schools in Bronx Open War on Dope" the headline read. The boys were justifiably proud!

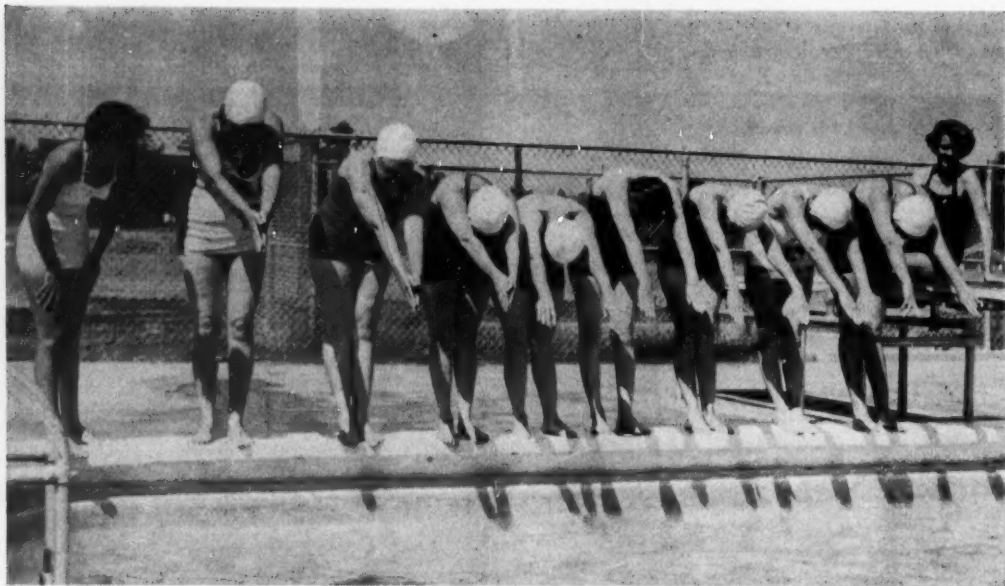
The rally featured speeches and exhibits by Dr. I. H. Goldberger, Principal Charles M. Shapp, Lieutenant Arthur Grennen of the Narcotics Bureau, and Dr. Lester Coleman.

The play was presented to an understanding audience. Congratulations and encouragement from school officials and others were read. This was the proof to the boys of what knowledges and skills acquired in school could accomplish.

During the course of the campaign, the boys of class 9-2 had accomplished much beyond the acquisition of subject matter. They had proved that the school is not just another building in the neighborhood located at such and such a place, but that it is a functioning part of that community with an important part to play in its improvement.

They had shown that even in our supposedly materialistic world people will go out of their way unselfishly to help others. They had learned from doing and put the lessons learned hard to work.

We at Knowlton know that we do not have a panacea for the teen-age drug menace. But we have taken an important step in the direction of preparing youth to meet it and other menaces.



The pool is the heart of the community recreation area; money from swimming tickets and refreshments supports the program.

This School System Believes Its . . .

School Pool-plus

by C. W. DAWSON

WHEN summer nights are hot and his boarding house is lonely, Mr. Mildew, a bachelor, retires to the side of the swimming pool, where rows of comfortable seats and soft lights help make the place a sort of community social center—proof that even those who shun all physical activity are provided for in Gladewater's school-sponsored recreation program.

The swimming pool by which Mr. Mildew likes to sit is the heart of the 8-acre community play area, for the \$4,000 it brings in from swimming tickets and refreshments pays for the maintenance of the entire recreation program during the 90-day season.

Aside from the school-owned and managed recreation tract, this Texas community of 6,500 has no parks. During the school year a part of the grounds is used for high school track and swimming activities.

Coach Lee Mitchell, the program

director, tries to provide something for everyone. Swimming, tennis, picnicking and baseball are available to all, but any who wish to use their energy in other sports are rarely turned down.

If, for instance, a group of boys wishes to meet daily in the gym of a near-by school for basketball play, he makes the necessary arrangements, which include furnishing an instructor.

"You Name It . . ."

Perhaps some girls would like a fling at softball. "Okay, be at the diamond tomorrow morning at 9:30," says Mitchell affably. And if some boys are in the mood for hurling a discus, heaving a shot, kicking a football or pitching horseshoes, they know they have only to ask Coach Mitchell.

Mitchell feels the program achieves two major objectives. "For one thing," he says, "it absorbs the sur-

Clarence W. Dawson teaches journalism at Gladewater High School in Gladewater, Texas.

plus energy of the youngsters, and I'm sure that has helped make juvenile delinquency a minor item around here. With this set-up in full swing, they wouldn't have the time or the extra energy for devilment, even if they had the inclination. And it's a family thing. There's something here for everyone."

Transition Eased

Since the 4-year-old program is run by school personnel (Mitchell is high school athletic director) and aimed largely at school-age children, the transition from classroom sessions to vacation play and back again is made more readily than it might be.

Demonstrates Ability

"Secondly," continues the program director, "the thing is dream-made for public relations. It not only allows school patrons to use school equipment, but also shows them how effectively school management can

provide recreation and instruction for adults as well as children."

Prime example of this is the free swimming instruction, given by a woman who is a girls' physical education instructor during the school year. The writer's 8-year-old daughter is one of the many children who received swimming lessons last summer, and there were also classes for teen-agers and adults.

As one parent put it this summer, "If this summer deal is a sample of how well the school folks handle their activities during the regular school term, I know they're doing a terrific job."

Mitchell, a former principal, doesn't feel that his job ends with seeing that the program runs smoothly. He regards it as an ideal opportunity to boost the school system in which he works. Talking with patrons made receptive by the pleasant atmosphere, he finds occasion to acquaint them with the achievements

and problems of various departments.

Gradually they learn about the band, which has won first division rank in 16 regional state and national competitions; the school newspaper and its first-class state and national rating; the general improvement in grades in all subjects which the reading development program has effected; the athletes who have been writing poetry in their English classes.

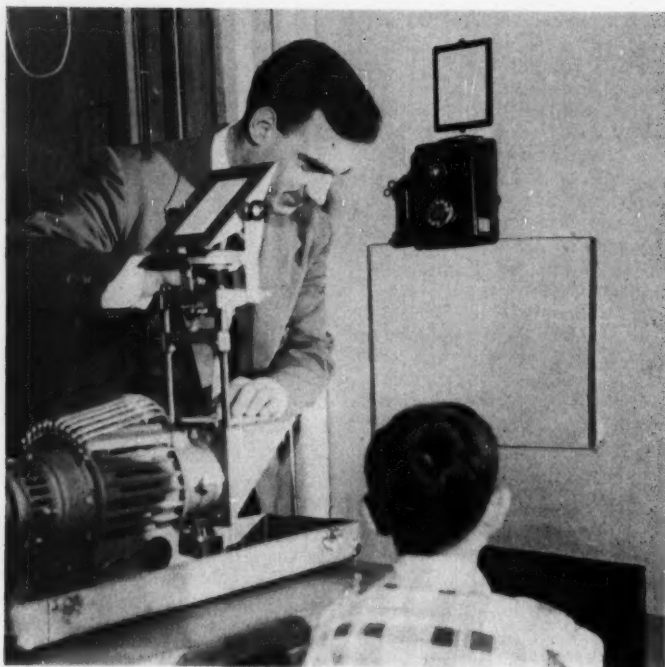
"... even popcorn"

Even so, to many Gladewater citizens the first proof of the school system's excellence that comes to mind is the summer recreation program. They feel as does Mr. Mildew, who said one night to someone else who likes to sit beside the softly lighted pool, "I like it here. It's like watching a movie in a cool theater. In fact," he chuckles, "you can even buy popcorn."

is a Public Relations Paradise

The writer's 8-year-old daughter was among youngsters who received free swimming instruction at the pool last summer.





Use of the tachistoscope, which exposes letters, words, and so forth for a selected brief period of time, is one of the many techniques teachers learn at the Center.

Dearborn trains teachers to . . .

Catch Problem Readers Young

Herschel Bennett is Assistant Superintendent in Charge of Elementary and Junior High Instruction for the Dearborn, Michigan, Public Schools. He served as Chairman of the committee which surveyed reading instruction and associated service facilities in the Dearborn school system.

by H. K. BENNETT

SPURRED by the incessant demands of parents that their children master the art of reading and their own professional consciousness of its importance, educators during the past three decades have made great strides in perfecting the art of reading instruction. Today, children the country over read well. There is little room for doubt that the present generation excels all previous ones in the mastery of reading.

In spite of the degree of perfection we have attained, we still are confronted with isolated cases of non-readers or youngsters who are so handicapped in reading that they are unable to function in most study situations. Their number is not large, but these slow readers put an added burden on the teacher—because in addition to the classroom problem they themselves present, their parents' concern often creates new problems and pressures.

Various attempts have been made to help such youngsters. Many schools have established remedial reading classes. Larger school systems have established reading clinics, and many colleges and universities have established centers to carry on research in this field as well as to serve as a diagnostic center for the surrounding community or state.

The emphasis in most such efforts has been on remedial measures. The problem cases have been allowed to develop and, after reaching the point of intolerance, have been referred to clinics for diagnosis and recommended remedial procedures. Corrective measures of necessity are of long duration, tedious and costly. Usually the longer the child has lived with the realization of his handicap, the more difficult his problem is to solve.

"Too Little Too Late"

It has occurred to some authorities that the idea of remedial instruction is wrong. It's another case of "arriving with too little too late." We should be concentrating on preventive measures instead, so that the need for remedial measures would not occur. We know that many reading problems are emotional in origin, resulting from pressure to read before readiness has developed. Others are the result of emotional instability

because of unfortunate home surroundings. Some result from physical deficiencies which, in most modern schools are detected early and corrected, or if incurable, adjustments are made for them in the child's reading experience.

Because they recognize the shortcomings of remedial programs in reading, the Dearborn schools have adopted a preventive approach to the problem. A reading center has been established with emphasis on training and equipping the classroom teacher. The center deals directly with slow readers only insofar as they are needed for the trainees to work with. Through the center we hope to train every classroom teacher in the school system so that she can detect reading problems in her own classroom as they emerge and apply the techniques she has learned as preventive measures.

In order to prepare and equip teachers to render this kind of service, substitute teachers are provided for five classroom teachers at a time, allowing them to spend six weeks at the center working with handicapped readers. Much time is spent in consultation with the two full-time reading center staff members reviewing the case histories of the children in the light of the psychological diagnoses provided by the psychologist.

The children in the Reading Center are transported by bus from various buildings throughout the system. Two children are assigned to each trainee. Considerable time is spent by the teacher in establishing rapport and gaining the confidence of the children with whom she works. Pressure is carefully avoided and much care is used in the selection of reading materials and devices. Each case is different, requiring different materials and different procedures. This results in a variety of experiences and insures both breadth and depth in the training the teachers receive.

Make Own Materials

As the teacher trainees work on their problem cases, they are continually developing techniques and materials. Since the children remain for the forenoon only, the afternoons are given over to workshop activities during which the materials are prepared. During their six weeks' stay the trainees develop not only the materials needed for the problem cases with which they are working, but a

large file of similar materials for individual reading on a classwide basis.

The materials used in the Reading Center and in the individualized reading program in the classroom are made by dismantling books, mostly readers, so that each story is in a separate binder. An eight- or ten-page booklet is much less formidable to the retarded reader than a larger book made up of many stories. With each of these stories the teacher develops a set of comprehension exercises which the child completes after reading the story. This serves as a check on how well he has read. Other exercises involve organization skills, following directions, using the dictionary and noting details.

Small Successes Help

The old adage that "nothing succeeds like success" is borne out in the experience of youngsters at the Reading Center. For them, completion of one of these little booklets represents their first accomplishment of this kind. Soon they will have had several such successes and become much interested in seeing their reading accomplishment chart grow as they add stories to their list.

In preparing materials to take back to the classroom, the teachers plan to care for the normal reading range within the classroom. A sixth grade teacher would likely have booklets representing a range from second through sixth grade in order that during the individualized reading period materials will be available to satisfy the needs and interests of all members of the group.

If the reading program is to be organized so that it will prevent reading disability, there are two important conditions which must be satisfied. These conditions, which we believe the Dearborn Reading Center program satisfies, are as follows:

- Teachers must have special training through the study of case histories and intensive work with problem cases so that they become proficient in recognizing symptoms, making diagnoses and designing and administering a preventive program.
- They must have at their disposal prepared materials to meet the variety of problem cases with which they will deal. In the main, these are not available in commercial form. They can best be developed by the teacher herself under trained leadership.

By far the largest percentage of

disabled reader cases are the result of emotional disturbances and mental blocks which interfere with the child's progress in reading. The symptoms of these conditions and the underlying causes must be recognized and understood if the case is to be handled adequately.

It is training of this kind that is so essential to classroom teachers in order that they may recognize in the early stages developing cases of this kind. The close association between the Reading Center and the Psychological Services, especially since the Psychological Services have important contacts in the buildings throughout the system through the Visiting Teacher services, makes the cooperative efforts of these two groups extremely important.

Regardless of how well the developmental reading program is handled, we will always be confronted with the problem of disabled readers. Our chief hope through the Reading Center service is to so train our teachers that the needlessly retarded readers now found in our schools may—through the individualized program which their teachers will be able to develop—be eliminated from the picture. These are the children who do not have physical handicaps or emotional handicaps, but children who have not developed to the full extent of their potential reading capacity. More careful attention to the need of individuals should result in the decreased size of this group of retarded readers.

Survey Shows Advances

A survey was made among teachers who had attended the Reading Center to determine the degree of success they have had in applying the principles acquired at the Reading Center with retarded readers in their regular classroom situation, and reports were returned on 70 individual cases covering one term's work. All but one had made substantial gains of from three months to three years increase in grade level.

On the basis of this survey, it is reasonable to expect that as the inservice phase of the Reading Center program sends more trained teachers back to the classroom, the number of disabled readers we will have to deal with will be reduced correspondingly, so that eventually the Reading Center will be able to take care of all the more urgent cases of disability.



Should the five-year-old go to school? That is still a debated question. Blacksburg, South Carolina, set up the first public school kindergarten in that state and is convinced that . . .

Kindergarten Is a Good Investment

by J. K. EAST

BELIEVING that many of the learning abilities of children were wasted by postponing formal education until they reach six years of age, the trustees of Blacksburg Elementary School decided, in June of 1950, to extend education downward to the kindergarten level. The idea had been casually discussed in board meetings previously, but it was not until the board chairman accompanied the writer to the 1950 meeting of the American Association of School Administrators that the idea became significant. After attending every pre-school meeting possible, the chairman was thoroughly convinced that our school could no longer neglect this phase of education. At the next board meeting a motion to establish a kindergarten at public expense passed unanimously.

For economic reasons the kindergarten was opened in the summer months only. By so doing, the expenses of a building and many materials and equipment were elimi-

nated. The Veterans' Department in the high school built the necessary playground equipment. The lunchroom supervisor, for a small salary, prepared a well-balanced meal for the group. The two first-grade teachers taught in the kindergarten (this enabled the youngsters to continue with the same teacher in the first grade which proved most helpful to them as well as to the teacher.)

The kindergarten program was met with favor by parents and first-grade teachers. A questionnaire sent to kindergarten parents revealed that 98.1 percent of the children liked kindergarten and that 100 percent of the parents could tell that kindergarten was helping their children. All of the questioned parents wanted to see the kindergarten continued as a part of our public school program.

When asked, "Did kindergarten

help the children in first-grade work?", one first-grade teacher replied definitely, "Yes, the kindergarten children in my room were superior to non-kindergarteners in their social habits, readiness for first grade work, vocabulary, and ability to take directions." The results of the first year's work in kindergarten were gratifying from every standpoint and the community responded to the idea. By September, 1950, we were able to establish another kindergarten at Cherokee Falls, a seven-teacher elementary school. Here the program was established on a nine-month basis from the beginning. The local cotton mill supports the kindergarten at Cherokee Falls, although it is operated entirely by the school system. The program here has likewise met with gratifying results. The children are much better prepared for first grade after having attended kindergarten.

In both schools the kindergarten program is offered free. The only expense borne by the pupil is the cost of lunch.

We believe the kindergarten plays

Mr. East is Superintendent of Schools in Blacksburg, South Carolina, a small rural-urban community with a township population of 7,000.

a major role in our total school program. From the standpoint of the child it is second only to the home training he receives before the age of five. In order to improve the quality of living for the child in the home, we are making a special effort to work with parents of pre-school children. Consultants in child growth and development are invited each year to a parents' institute. We invite to this institute not only the parents of five-year-olds, but all parents in the community. In addition to the annual institute, we also try to keep parents informed by letters and individual and group conferences on subjects such as how children learn to read and how they mature emotionally.

We try by every means possible to coordinate the efforts of the home and school in providing happy and useful experiences for the boys and girls.

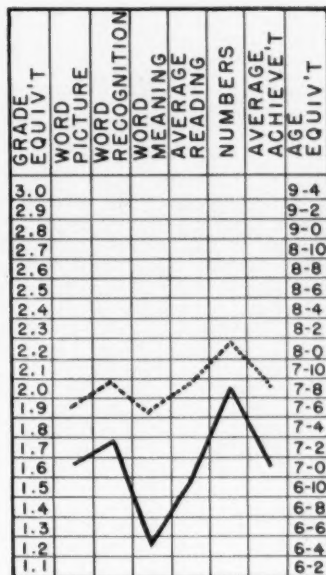
The progress report on the child is brought out in a teacher-parent conference. We believe this to be superior to all other methods for reporting to parents and of great value to the teacher as well. It offers opportunity beyond merely reporting the progress of the child—the teacher is able to give many helpful suggestions to the parents and both come to a better understanding of the relationship between the home and the school. As a result of those conferences, the great task of guiding the young citizen of our community is more effectively accomplished.

Results of Program Charted

The data for the accompanying graph were obtained from the Metropolitan Achievement Test given to the first-grade pupils in the Blacksburg Community Schools. The dotted line denotes pupils who attended kindergarten; the solid line denotes pupils who did not. The chart reveals four things, namely:

1. The median grade placement for the kindergarten pupils was four months more advanced than that of the non-kindergarten pupils.
2. The greatest difference in achievement was in word meaning.
3. Numbers seem to trouble non-kindergarten pupils least.
4. In all areas the kindergarten pupils excelled as a group.

The 52 kindergarten and non-kindergarten pupils were taught in mixed groups. The two first-grade teachers divided both the kindergarten and non-kindergarten pupils as



nearly equally as possible between them in order that each teacher would have a mixed group.

It is significant to note that the greatest difference in achievement between kindergarten and non-kindergarten pupils was in word meaning. Since an adequate oral vocabulary is necessary before a child begins to read, a study of this chart clearly shows the value of kindergarten in preparing a child to read.

The value of our kindergarten is further shown by a comparison of the median grade placement on the Metropolitan Achievement Test of non-kindergarten and kindergarten children. The 1950 first-grade placement on the Metropolitan Achievement Test was 1.7—these pupils had not attended kindergarten. The 1951

placement on the same test was 2.1—38 of the 52 1951 first graders had attended kindergarten.

In every attempt to evaluate the kindergarten and non-kindergarten pupils, we have found the kindergarten pupils to excel.

Fewer Failures

What Blacksburg has done, any community can do. Our community is not wealthy. Although kindergartens do cost money, when measured in terms of the child's growth the experiment is proving a good investment. We operate on the theory that it is cheaper and easier to give the child the right beginning than to have him repeat work in the primary, and sometimes upper, grades because of a bad beginning. We are finding fewer failures among kindergarten children than among non-kindergartners.

In view of the complex society in which we live today, and therefore, the increasing need of kindergarten education, it becomes apparent that kindergarten should receive, in addition to official state recognition, state support. Educators must break with tradition except where it fits. It is time that the school program be based on what we know about child development rather than on tradition.

The facts of child development and learning are common knowledge today. They place strategic importance on the proper training during the early years of life. Kindergarten children need many stimulating experiences: they need to go places, to explore, and to experiment; they especially need friends of their own age with whom to work and play. These needs can best be met—and early learning habits best begun—in this area of pre-school training.

Blacksburg's first kindergarten was held during the summer for economic reasons. The high school Veteran's Department built the playground equipment.



*The problem-solving
approach means
just . . .*



Motivating Learning the Cave Man Way

by ROBERT D. MacCURDY

WHEN the cave man taught his son where to go for game and how to catch a deer, he drew a map in the soil with a stick and built a dead-fall in miniature. Then he sent the boy out to become a hunter, with the promise of a great feast when he returned successful. We in educational circles today are experiencing a rebirth of just such ancient teaching methods.

For centuries we were in the Dark Ages as far as education was concerned. Our cave man became a farmer, then a craftsman, a tradesman, a business man and finally an industrialist. His sons and daughters left the fields and woods, and went into buildings to be taught. They used paper and pencils, books and slates; learned by rote and recited; and submitted to a military type of discipline.

Their teacher lectured to them, and the teacher's voice in their ears

was their greatest source of new facts. Other senses, such as smelling, tasting, touching, were ignored. Yet all the senses are working during the conscious hours. They are the passageway between the outside world of material things and the brain, which is the home of ideas. It is little wonder that students were guilty of day-dreaming, inattention and confused ideas. One or two of their senses were working toward learning while all the others were fighting the process.

And what were they supposed to be learning by this method? Students were learning things that were "good for them": spelling, arithmetic, grammar, poetry, Latin, Greek, ethics and religion. Always these were building blocks for some future use.

Selective Learning

As the cave man's son, we do everything from some sort of motiva-

Mr. MacCurdy is a biology teacher in The Senior High School, Watertown, Massachusetts. He characterizes himself as "more ringmaster than instructor."

A balanced terrarium
—an exhibit made by
the president of the
science club.



tion. We are selective in our learning. We take only those things which will help us solve our problems. We have in common certain motives which, to a large extent, determine our activities:

- ... desire for prominence, to excel
- ... desire for self-respect, pride
- ... desire for approval
- ... desire for adventure, to explore the unknown
- ... desire for sympathy, in sorrow and in joy
- ... desire for action, progress
- ... desire for company, sociability
- ... desire to satisfy our eternal curiosity about everything

The motivation of human behavior is in high agreement with this problem-solving idea. As we, the educa-

tors, considered it, all life seemed to be the solution of problems. Why not our school methods also?

Cave Man Methods in Classroom

We tried it and it works. It begins with a big problem (how to catch a deer) presented by the teachers and, if it is tied to the student's motives (desire to become a mighty hunter), he will try to solve it. We help him as much as we can to gather the data, to discover the relationships, to draw valid conclusions that are related to the problem. He needs many books and supplies, equipment, time, space, associates and the setting. He needs to talk to people, observe things, test things.

The student needs to go away from

the classroom and see for himself. We give him "away from school" assignments. We arrange field trips, visits, tours and interviews.

But the student wants to see a mountain in eruption, the inside of a running motor, a heart beating. He wants to smell tropical flowers, to touch the hot sands of the desert. He wants to try a king's crown on his head, to taste of nectar and ambrosia. He wants to experience the things of the world and then he will know.

We agree with him for we have long known that experience is the best teacher. But the world is big, and time and expense are major deterrents.

It was said long ago, "If the mountain won't come to Moham-



The classroom should
be modified to "ac-
commodate anything."

med, Mohammed must go to the mountain." Our "Mohammed" cannot go to the mountain so we must bring the mountain to "Mohammed." How shall we do it?

Bring World to the Classroom

The Chinese knew long ago, and newspaper and magazine publishers know today, that "one picture is worth ten thousand words." We show him pictures—black and white pictures, colored pictures, cartoons, paintings, sketches, photographs, moving pictures. For listening we add sound tracks, transcriptions and recordings. We hand him miniatures, models, mock-ups and sand tables. We show him charts and dioramas, samples and specimens. We give him portions to see, feel, smell and taste. We present demonstrations, plays, exhibitions, dramatizations and fairs.

We soon discover that this is very hard work. Teachers need some assistance. Taking our clue from another adage, "The best way to learn something is to teach it," we turn all the students into teachers. Our function becomes to help them help themselves. They may not be perfect as teachers, but neither are we.

All Talents Go To Work

We get everybody into the act. Some plan the work, some operate the classroom apparatus, build models, collect specimens, take photo-



graphs, give demonstrations, paint pictures and draw charts, write reports, present plays, run errands and clean up.

Such a scene of activity! There is scarcely time and space for it all. We change the classrooms about somewhat. We stay after school and form clubs to give the students status and recognition, much as the cave man gave his son at the feast.

We remember the cave man, and we realize that we are just like him. We have gone back ten thousand years and found "The Way" we lost so long ago.

▲
"The Cave Man," a prize-winning diorama, is a Science Fair project.

When everyone is a teacher, the teacher's function becomes to help the students help themselves. ▼



**a noted educator recommends
schools cooperate to supply . . .**

The Growing Demand For Unbiased Economic Materials

by THOMAS H. BRIGGS

THERE SEEMS TO BE general agreement that education for economic competence is badly needed, that illiteracy about economics is widespread, that the school program in this field is inadequate, and that consequent dangers exist.

These dangers are: *first*, the inability of the individual to use intelligently our economics for the good of himself and for the good of the nation; *second*, a lack of pride and patriotism in our country and in its achievements; *third*, an inability to vote intelligently about proposals for changing our economy; and *fourth*, a hospitality to all sorts of "isms," proposed cures for the ills which people recognize but are not competent to judge sensibly.

Now, why has education not provided for this kind of education? The chief reason is tradition, tradition not only on the part of school people, but also tradition on the part of the public. The tradition-minded public is reluctant to approve of improvements the need for which they do not understand. It is easier to follow old paths, even though they are rugged and lead

to worn out fields, than to blaze new ones to fertility.

There are only three "dangerous" subject areas in education. One is sex, one is religion, and one is economics. You never hear of a teacher being ousted for what he teaches in mathematics or chemistry; you never hear of a teacher being criticized in a school because he teaches the Austrian method of subtraction rather than the take-away method. But let him say something about sex education and at once half the community, if they know about it, are excited. Let him say something about religion or labor relations and he is likely to be in hot water. The textbooks have improved, but any text that touches on one of these three topics is in danger. As is frequently acknowledged, teachers have become timorous—they don't like to be criticized and they are fearful of losing their jobs. They can teach the Battle of Bunker Hill without anybody's criticizing, but when they go into the economics of a strike or the causes of a bank's closing they're likely to be in trouble.

We should put the high school curriculum on an economic basis and say that it should justify itself in terms of making the community a better place to live in and a better place in which to make a living. Then if you go to the schools and observe what is being taught and say, "I'm paying for that, and what is the community likely to get out of it in being a better place to live in or a better place to make a living in?" you see that much current practice leads to bankruptcy.

This sounds like pessimism. It is pessimism, however, based on fact, and I have come to the conclusion that high school education is never

going to be reformed as it needs to be reformed until the laymen, the intelligent concerned laymen, twist the tail of the schoolmaster. He has the tradition which is supported by the tradition of the public, he has timidity because he loses his job if he does something that the community doesn't understand or doesn't believe in. And even though he realizes the need of radical improvements to bring the curriculum up to effectiveness in modern life, he is likely to attempt little unless he is convinced of public approval beforehand.

I ought to qualify this pessimism by saying what is perfectly true, that there are hundreds and hundreds of high schools in the United States that are introducing novelties that are of great value. But, there are 26,000 high schools in the United States! Especially in small high schools I believe that at least 60 per cent of the teaching is sheer waste. I'm sure that if we prepare materials that are fair and objective and obviously valuable and if the members of the community are convinced of that, they would put pressure behind the school people so that we should get an education that is worthwhile, an education that pays assured dividends in the good of the communities and of the nation.

Duplication Wasteful

It is a job that can be done only by people who are authoritative in theory and facts and also authoritative in the knowledge of children, in the knowledge of how they can learn and of the techniques of instruction.

Schools and school systems and even states have attempted to improve the curriculum. But it is a very uneconomical procedure for a high school in Philadelphia to attempt it, and then for a high school in South Dakota and another high school in Missouri and another one in California to go over the same ground. So, for economy, for national economy, it is wise for some central agency to do the job for all, and the best agency to prepare materials which can be used everywhere is the National Association of Secondary-School Principals.

There can be no compulsion. This Association has no authority to say that a school in Philadelphia or in South Dakota or anywhere else shall use these materials. But if this organization, which has as its membership principals who are responsible

This article is drawn from a talk by Dr. Briggs, Emeritus Professor, Teachers College, Columbia University, given at a joint meeting of the National Better Business Bureau, Inc., and the National Association of Secondary-School Principals to discuss plans for improving education in economic competence in high schools.

for 92 per cent of all the high school pupils in the United States, presents material, it will be drawn on and used economically as nothing else can be.

Of course what we need is a curriculum research laboratory, a national one, made up of people just as competent as the research people in General Electric, Bell Telephone or General Motors, devoting their full time to research in the preparation of materials in all fields which can be used or not as the schools see fit. Inevitably, we are coming to that.

No Propaganda

I do not know exactly what this project should do, but I can say confidently that the National Association of Secondary-School Principals is not proposing this project for propaganda. It has no political ideals that it wants to put over. It wants to do what the public wants—to give understanding of the American economy, and it wants to provide the education that will help young people to use it intelligently and effectively and gradually to improve it.

It seems to me that we have failed in a large extent in our economic education because we have not agreed on what the fundamentals of American economy are. We use the term of "free enterprise." Everybody talks about free enterprise. We don't have entire free enterprise. You don't call a doctor who hasn't a license by the State, and the moment he is licensed by the State the freedom of enterprise to practice medicine is negated.

You don't want to go into a restaurant that hasn't been inspected by the Health Department—so the freedom of a man to run a restaurant is arrested by State inspection. So what does free enterprise mean? It means something that you believe in and I believe in and we have got to define terms like that so that young people can understand the meaning and believe in it and use it intelligently for the good of themselves and the good of the country.

My own idea is that we should find out what the public believes is essential for education for economic literacy. Then we should turn this list of agreements over to a group of experts who have not only the intellect, not only education in economics and related subjects as well as a knowledge of learning processes, but also the full time and resources of information so that they can go to the authoritative people and find what the facts are and then have the ability to translate their material into teaching-learning units which can be offered to the schools by the authoritative National Association of Secondary-School Principals. This Association is the logical authority to undertake the responsibility of carrying out such a project. It is the representative of practically all of the professional leaders of secondary education, and I am convinced that what is offered by people who are not representative of the profession is not going to be acceptable to the school people and will not be used.

Here we have an opportunity to carry on what has been begun by the Consumer Education Study, intelligent, clear-minded cooperation between business and educators to prepare impartial materials, to offer them to the schools, to produce what the public wants.

Why should the layman, why should business and labor and agriculture, cooperate to help in this project? Because the success of business, of labor, of agriculture, the success of our nation, indeed, is dependent upon people who are economically intelligent. If we have a climate of intelligence in the economy, why then, everybody prospers. But if we continue this business of teaching what leads to hostility, antagonisms, bitter accusations, misunderstandings of one group by another, we are bound for economic disaster and, I think, for national disaster.

I think we should have a joint committee of representative laymen and representative educators who are the directors of the whole project. They decide on the plan of operations, they decide on the personnel, they approve what is produced, and then they get back of it to persistently promote its use in the schools until we get an improvement of the teaching of economics.

Why should the public support a project of this kind? Because it is an economy for one central agency to do efficiently what individual schools or individual school systems will do uneconomically, if at all, and not so well; and because there is no money available from ordinary sources.

(Editor's Note: Dr. Briggs informs us that at the present time a foundation to promote the project for increasing economic literacy entitled "Council for Advancement of Secondary Education" is being incorporated. The chief purposes of its initial work will be: To ascertain what are the informations essential for all citizens to have about our economy; to locate or to prepare the necessary teaching-learning materials; to coordinate the efforts of all existing agencies for increasing economic literacy—Joint Council for Economic Education, etc.; to improve the competence of teachers for presenting economic education; and to get the help of citizens to influence schools to teach what is essential for economic competence.)

The success of business is dependent upon people who are economically intelligent.



Standard Oil Co. (N.J.)

SCHOOL PLANT

News & Views

Construction Costs, Debt Service Rates Go Up; School Buildings Must Continue To Go Up, Too

"EVERYTHING seemed to be against us . . . competing community interests, rising prices, steel and copper shortages, inflated bids. But despite all this, we had to have more schools. So we did like everybody else. We built them."

This statement was made recently by the chairman of a local citizens' school building committee speaking for his community. There is a lot of truth in what he said.

1951 Set Record

Back in 1951, more educational buildings were constructed than in any year in U. S. history. In 1952, when this citizen spoke, the volume of educational building fell short of the high water mark by only 9 percent—this despite rationing of critical materials. Capital outlay expenditures for public school building construction remained at the 1951 level of 1.5 billions of dollars. The volume of such construction fell from 4707 to 4591 buildings.

Obstacles Overcome

When one considers the stumbling blocks communities had to overcome to accomplish this feat, he must agree that 1952 was a remarkable year.

Remarkable?

Before exhausting ourselves with praise, however, we should take a look at the volume of building which should have transpired during 1952. School plant specialists have, since the end of World War II, stoutly proclaimed the need for radical expansion of public school housing. These proclamations, based on personal experience and observations, were validated this year by a U. S. Office of Education survey of the nation's immediate schoolhouse needs.* According to the U. S. of-

fice report, 325,000 instructional rooms should have been built to offset obsolescence of existing rooms, overcrowding and the growth in population. \$10.7 billions should have been spent. Only 44,164 instructional rooms, less than 15 percent of those needed, were actually constructed.

Outlook for '53

1953 looks rather dismal. We have for a fact a long row to hoe. The

spectres of double sessions, overflowing classrooms, and other symptoms of inadequate schoolhousing hover about our shoulders. Debt service on school bonds continues to rise. Cost of labor and materials stubbornly refuses to level off.

"Build" Only Choice

Accepting all of these as facts, we still have but one choice—to build rapidly and wisely, and with the determination that an extended schoolhousing shortage will not again prevail.

(Editor's Note: A complete report of all educational building during 1952—public, private, junior college and college—will appear in the forthcoming 1953-54 *American School and University*, Volume 25. This summarizes essential information for school plant planners.)

"A LONG ROAD TO HOE"



*"School Facilities Survey", Second Progress Report, U. S. Office of Education, December 1952.

PART II: a study of five award-winning school designs



Photo by Fred Hiras & Son

F. Lee Cochran, of Perkins and Will firm, accepts THE SCHOOL EXECUTIVE Better School Design award and shares honor with Supt. of Schools N. E. Watson. Henry H. Hill, George Peabody College president, presented the plaque at AASA convention.

The Glenview-Northbrook High School

the product of eight years of educational planning—
a plant that can expand to meet future school needs

AN AMAZING NUMBER of problems face the architect and school administrator in programming and designing a new school building. Particularly is the high school difficult because of the lack of basic information on youth, lack of agreement on a satisfactory function for the high school to perform in the community, and the rigidity of the traditional concepts governing the present-day program. Still, high schools must be built, programs devised, and youth accommodated. The problems become particularly acute when, as now,

the high school age population is rapidly expanding.

In the next several pages, the problems, programs, and design solutions worked out by the people of Northbrook Township, Illinois, are enumerated. The tangible result of their labor is the award-winning Glenview-Northbrook High School, designed by the architectural firm of Perkins and Will, one of the five school plants judged outstanding in THE SCHOOL EXECUTIVE's second annual competition for Better School Design.

THE GLENVIEW-NORTHBROOK High School may rightly claim to be the most thoroughly planned school building in America. More than eight years were spent in programming and designing this school. The superintendent of schools was freed from many other administrative duties in order to supervise this planning. Faculty members, students, parents and other citizens shared considerably in practically every phase of the work. Consultants assisted these people in developing a program, methods of financing, site selection, and design.

How effective this planning has been remains to be seen. In reviewing the award-winning Darien Junior High School (see *THE SCHOOL EXECUTIVE*, April, 1953) the building had been completed and occupied; realistic, if subjective, judgments could be made of the effectiveness of the building in facilitating the program and providing an appropriate space for living. Such is not the case in the Glenview-Northbrook School. Only the features of design can be seen. Consequently we cannot describe the "feel" or atmosphere of the school, its good and not-so-good points in relation to the 725 children who will occupy the building this fall. Neither can we assess the effectiveness of the extensive educational planning which undergirds the

architectural design. We can only enumerate those things which were done without the benefit of the community's judgments.

The résumé of the award-winning design of the Glenview-Northbrook High School will deal with three areas: the problems identified and attacked by the community; the types of organization for programming the school; and, primarily, the outstanding design solutions to some of these problems.

A Bit of Background And a Bugaboo: Suburbanization

The school problems which Northfield Township faced, like those of so many elementary and high school districts, stemmed largely from the social and economic dislocations of the depression thirties and wartime forties.

The township embraces three suburban villages—Glenview, Northfield and Northbrook—lying from 18 to 21 miles northwest of Chicago. Served by rail transportation that is still noted for pot-bellied stoves on rush-hour trains, all three villages had escaped serious urbanization until the late thirties. Then their eastern areas began to absorb a substantial share of the home building overflow from the North Shore.

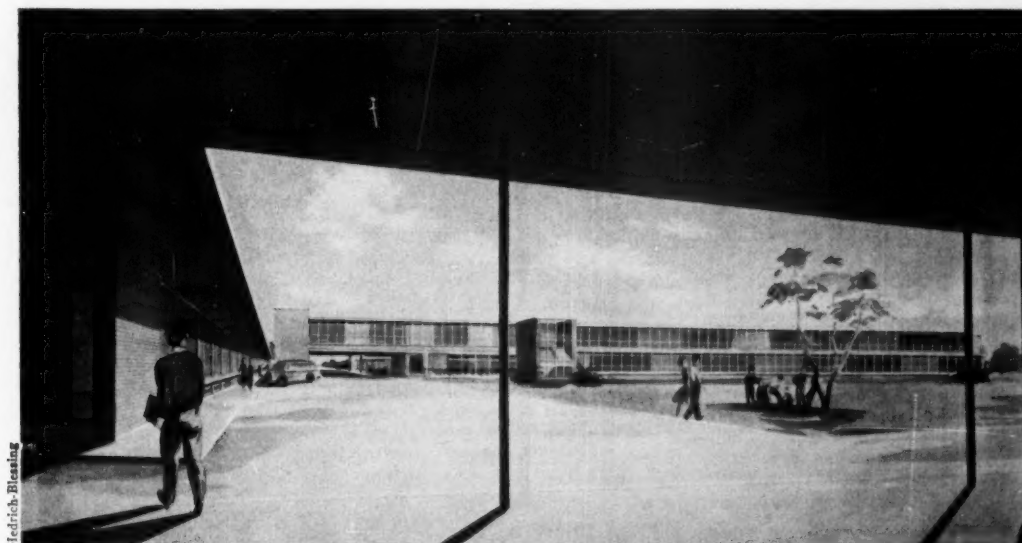
The problems of the area were in-

tensified by the outbreak of World War II, which resulted in the conversion of the Curtis-Glenview airport into the Glenview Naval Air Station, one of the largest reserve training installations in the country. Hundreds of small homes, built under war housing ceilings, upset the tax bases of the elementary districts, particularly around Glenview. One district's only elementary school was displaced by the principal runway of the Naval air station.

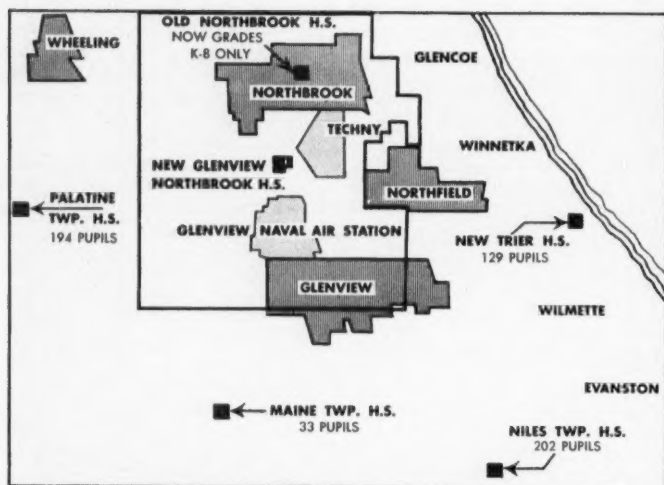
Secondary school administration was organized under that unique Illinois device, the non-high-school district, supervised by the office of the Cook County superintendent of schools. Graduates of the eight elementary school districts in the township matriculated as tuition students in as many high schools.

The First Step: A New High School District

In 1945 the prospect of a postwar housing boom led the Northbrook district to begin a study of its overall school problem with special emphasis on the high school problem. A consultant from the University of Chicago was retained to conduct the study. Upon the suggestion of the Glenview superintendent, the study was extended to include the entire township. The preliminary report



Viewed from the west end of the bus dock, the high school's academic wing stretches majestically across the campus.



Glenview and Northbrook are separated by a "Chinese wall" barrier including the naval air station and Techny institutions. The village of Wheeling was served by the Northbrook high school, but withdrew, while the western half of Northfield village voted to join New Trier township to the East. Figures show present distribution of the high school district's pupils.

suggested forming a high school district embracing the whole of the township as well as portions of nearby Wheeling Township.

In October, 1946, a steering committee representing four elementary districts began to work toward formation of the new district. Within a few months Wheeling, whose high school students had attended Northbrook, voted to annex to the Arlington Heights high school district to the west. The western half of the village of Northfield voted to detach from the township and be annexed by New Trier to the East. Thus the first high school district board, elected in May, 1947, was faced with a reduced area which had lost much of its desirable tax base.

During the next two years the board dispatched a series of organizational moves:

- Instructed the Northbrook school superintendent to prepare educational plans for a school to serve 1200 to 1500 pupils, then retained him on a part-time basis as high school superintendent and board secretary;

- Formed a citizens advisory committee;

- Established the legality of the new high school district;

Studied various sites for a new high school;

Took over operation of the Northbrook high school;

Retained the architectural firm of Perkins and Will, which had served three of the elementary school districts as well as the adjoining Winnetka and Deerfield districts.

Site Selection And a Little Confusion

The new board submitted to referendum a single site near the center of population in Glenview. The public approved the site, established authority to purchase it, but refused authority to issue \$125,000 bonds to purchase and develop the site. The Citizens Advisory Council spearheaded an extensive campaign, yet four weeks later when the bond issue was resubmitted it was again defeated.

Following this second defeat, the board employed a firm of public relations counselors to organize the presentation of facts to the voters. A block committee, ultimately including some 600 members, went to work providing research, poster contests, publicity, a speakers bureau, and house-to-house interviews. Question-

and-answer brochures were circulated throughout the township. For six weeks the election campaign raged, climaxing in a mass meeting in which the opponents of the issue were faced with the facts. Pro-high school fever rose to a pitch.

On October 29, 1949, just six months after the original defeat, a \$1,750,000 bond issue was passed by a 4 to 1 majority. Things were looking up for the township. Three weeks later a site in the geographical center of the township was approved.

Enter the Architects And the War in Korea

During the next six months, site studies and working drawings progressed. Openings of bids were set for July 27, 1950. Two things happened:

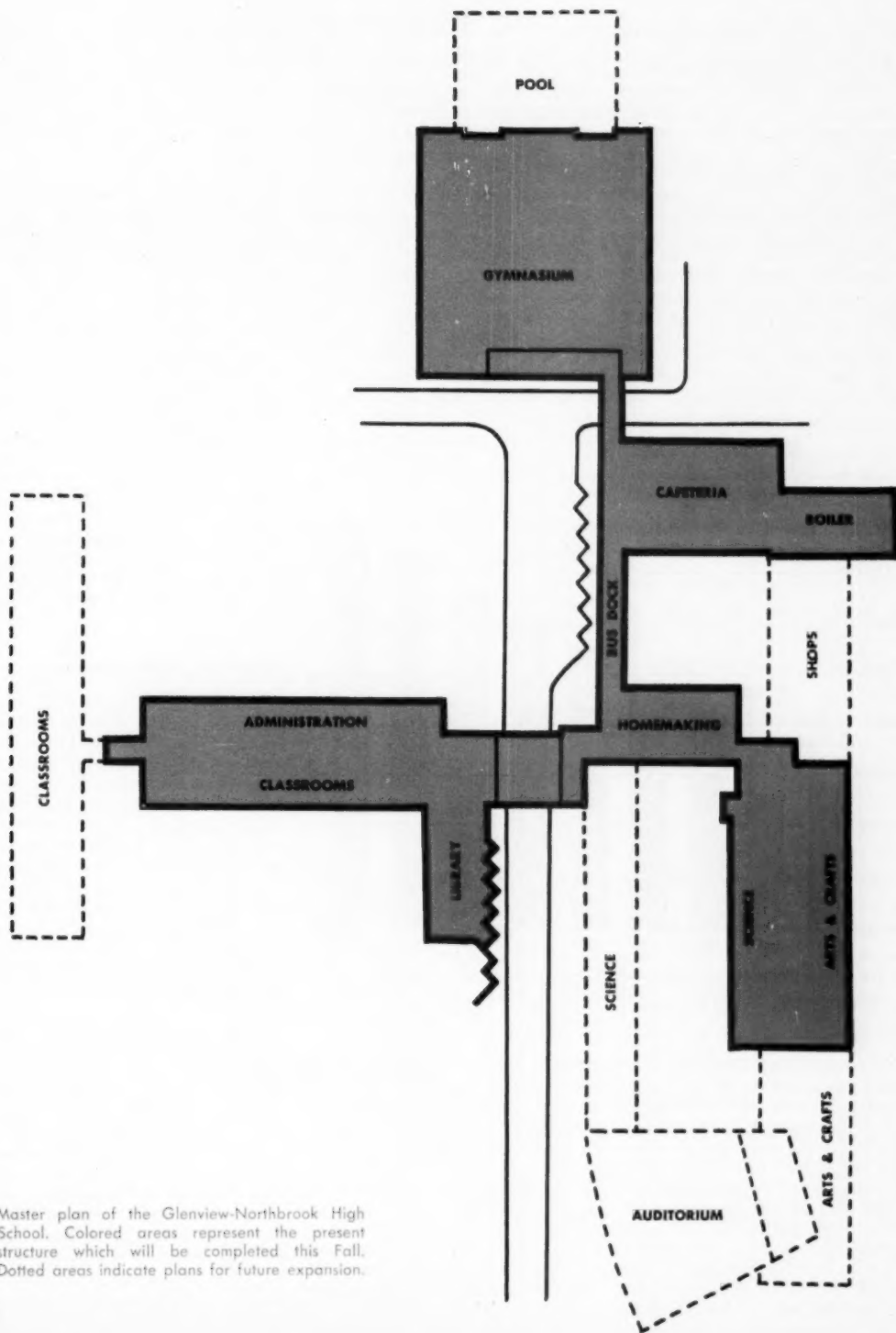
1. The Korean outbreak sent construction bids sky-high.

2. A Glenview delegation informed the Board that it planned to file an injunction compelling construction on the East Glenview site which had been approved in the first site referendum in 1949.

Construction was delayed nearly two years pending settlement of this injunction suit. Finally in 1952, after severe curtailment of the initial program to compensate for rising construction costs, construction began. Before the court fight was resolved, expanding elementary school enrollments forced the conversion of the district's only high school at Northbrook into elementary classrooms. The high school students were accommodated temporarily by surrounding districts.

In the Meantime Educational Planning Proceeds

Despite the administrative, legal and construction problems, educational planning for the new high school proceeded on an exhaustive plane. The problems here were just as difficult and perhaps even more nebulous and elusive of solution: What activities were to be housed? What teaching methods to be used? What instructional devices and materials would be necessary to carry out the program? What organization of pupils should be used? What sort of adult education program would the community require? What big group activities, such as physical



Master plan of the Glenview-Northbrook High School. Colored areas represent the present structure which will be completed this Fall. Dotted areas indicate plans for future expansion.

education, dining, socializing, recreation and music should be programmed? What would be the character of these activities? What should be the points of emphases in the educational program? Would vocational education have a part in the program? Will it consist of trades training or be a part of a comprehensive secondary school program? What part will music, the arts and crafts have in the program? Will the new program be designed for college preparation or will it provide for all of the youth of the community? What people will the program involve? How many need to be housed today? How many tomorrow, in 1955, in 1960, and beyond? Where do these people live? How will they get to the school?

appraised for contributions to the Northfield planning. The research was distilled into approximately 100 pages of printed program suggestions for the architects. Typical of the entries in this educational plan is the description of the proposed arts program.

Such general concepts of art education as these were enumerated: "Art experience is an essential tool of general education for all children at all levels of growth; all children are capable of achieving some growth and some success in art activity; what happens to the worker's personality during an art experience is more important than the objective quality of the tangible product; art experience is primarily free and individual exploration and experimentation,

opportunities for all boys and girls from the time they enter school until they are graduated. We would invoke the principle that in a broad, diversified, integrated program any individual would find something to his liking. Individuals differ regarding what things interest, challenge and satisfy them. Not a specific activity for all is indicated, but several types of arts activity for everyone."

Direct implications for design were then pointed out: "If the arts are to function properly and adequately in the program, an *arts center* is essential. The arts center should be arranged architecturally to facilitate the closest possible relationship of all art activities. It should be easily accessible from science, social studies, and similar areas. Architecture, organization, color and light should bespeak art in every possible way. Most equipment should be light, movable, versatile, and safe for boys and girls at various stages of growth. The arts center should set the stage for functional growth through a myriad of arts activities in all aspects of daily living."*

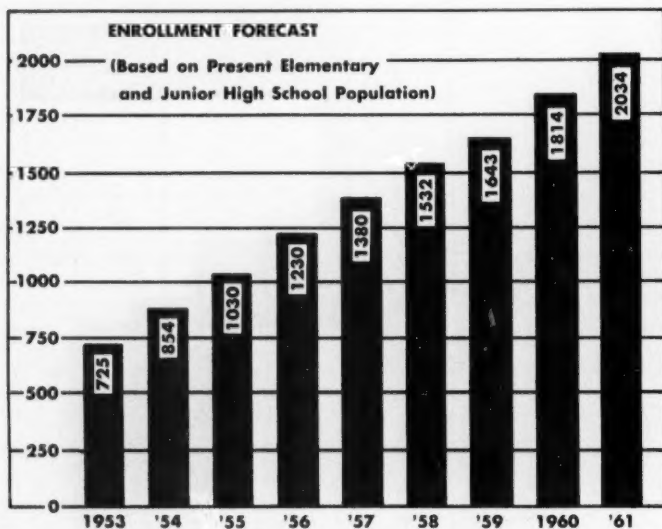
After Educational Planning Comes the Design

On the basis of their site studies, the prediction of anticipated enrollment and the 100 pages of program suggestions, the firm of Perkins and Will set about achieving particular design solutions. Three problems over and above housing the educational program had to be resolved. The design had to provide for extremely rapid expansion of all facilities. With an estimated opening population of 725 in September, the school should be prepared to house 2000 by 1960 and possibly 3000 by 1965.

Since the school's program calls for a full role in community life, accommodations for comprehensive adult education, recreation, civic functions, and parking had to be provided. Finally, the population studies indicated that more than 75 percent of the student body will arrive by commercial bus or automobile.

In the sketches, site plot and floor plans which follow, the particular design solutions to these problems may be readily seen.

* For detailed study of the Northfield Township Community educational program, see *A School For Young Citizens*, Office of Field Services, College of Education, University of Illinois.



The rising enrollment forecast for Glenview-Northbrook High School dictated a campus type plan that could be expanded in the years ahead.

Northbrook High School teachers, students and parents from the entire township wrestled with these problems. They engaged in an intensive study of the curriculum and the functions of the new high school. Both the buildings and the educational offerings of all neighboring high schools were evaluated by both professionals and laymen. All Illinois high schools with enrollments of 800 to 1500 were visited. Detailed studies and facilities of 50 leading high schools throughout the country were

rather than the filling of technical and subject-matter presentation."

Guideposts for the teaching of arts were listed: "We should teach art as a method rather than as a subject, as an approach to life and its problems. The art program becomes a series of cooperatively planned experiences by teacher and pupils rather than a number of predetermined problems and exercises. We should start with the students' background and experience in any art activity.

"The school should provide arts

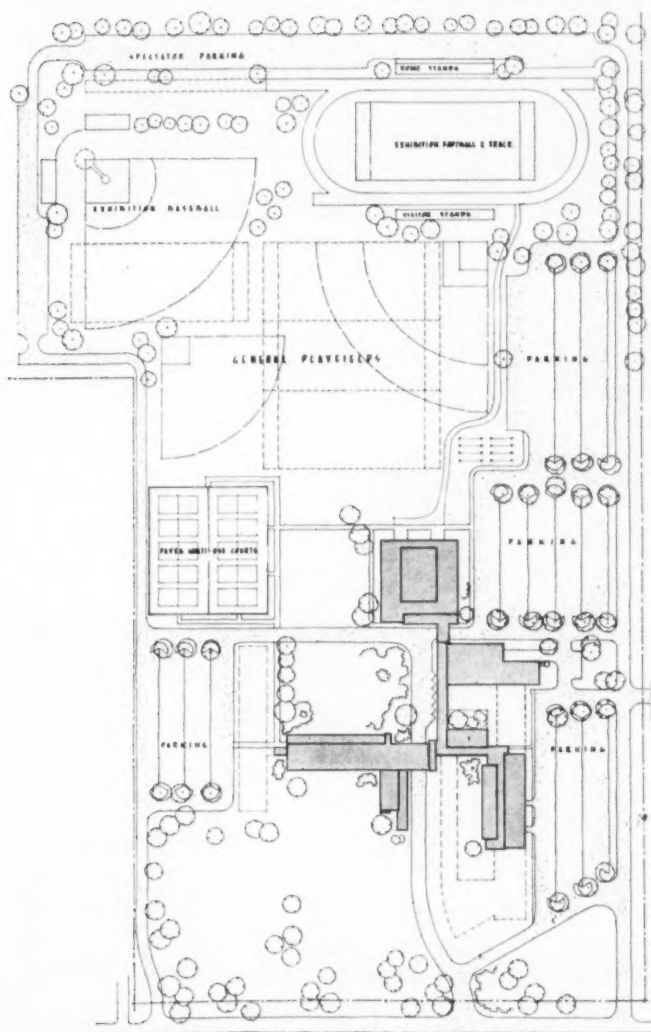
Glenview-Northbrook High School Design: separation of athletic, study, approach and administrative facilities

The modern secondary school more and more is designed as a series of related buildings rather than a housing of all elements under a single roof. In addition to the structural advantages of such an arrangement, permitting expansion of the individual units independently of the entire building, distinct educational advantages accrue. Such non-compatible activities as physical education and library work are separated in the campus type plan preventing the disturbances of the quiet

by the noisy element. Circulation patterns are kept hazard-free by separating large group elements simultaneously in use.

It is just such separation of elements which Perkins and Will achieved in the Glenview-Northbrook High School that won the commendation of the Competition jury panel. In the site plot plan, the division of athletic and academic facilities may be readily seen. Ample parking facilities adjacent to large group spaces have been provided. Spectator areas and exhibition sports fields are nicely separated from the general play areas. Bus loading takes place at a point central to all four major wings of the building.

The extensive site purchased by the board of education has been used to advantage. Although the major portion of this site is devoted to formal games, a considerable amount was left in the plot plan for development into suitable areas for science, art and other out-of-doors learning activities.



design:

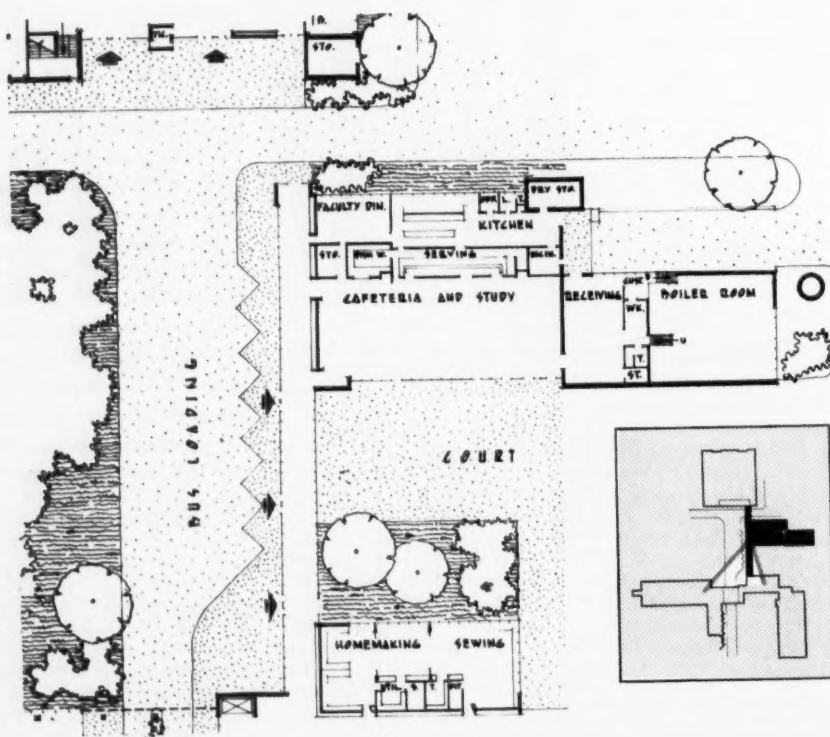
bus loading facilities and cafeteria form pivot

Cognizant of the social learning opportunities offered teen-agers in these spaces, Perkins and Will opened the corridor and exterior walls of the cafeteria and homemaking suite onto an enclosed court. Dining and study in the multi-use cafeteria can be a genuine event for these young people without the regimentation characteristic of most high school cafeterias.

The bus loading dock is one of the key features of this school since 95 percent of the students are beyond walking distance. This is a good example of the cheery sunlit interstices gaining favor in today's high schools.



Kranz Studio





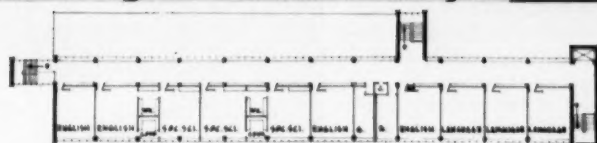
design:

academic wing accessible

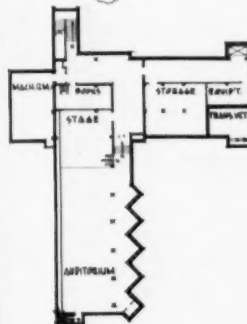
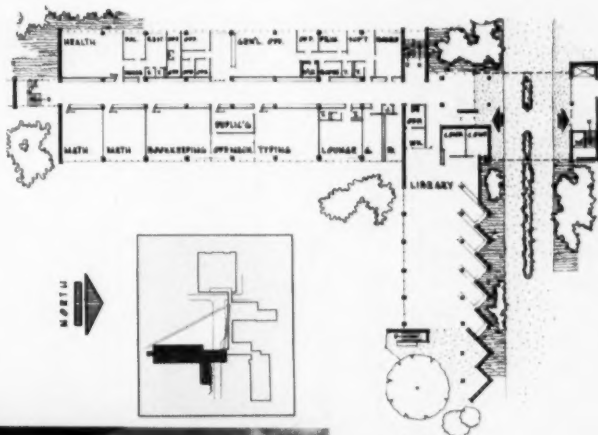
Well separated but accessible from other elements in the school, the academic wing is well located for future expansion. In the site plot plan, a wing perpendicular to the present facility will accommodate the influx of new pupils expected by 1960. Compatible spaces such as the administrative suites and commercial work rooms are located adjacent to each other on the first floor.

Seeing no reason to justify a daylighted auditorium, Perkins and Will located the stage and auditorium with their various correlary spaces beneath the library wing. A larger auditorium is provided in the overall expansion program designed for the future.

Although most classrooms are planned for an academic-recitation program, different sizes were designed in order to increase interior flexibility.



4TH LEVEL



BASEMENT LEVEL



Krautten Studios

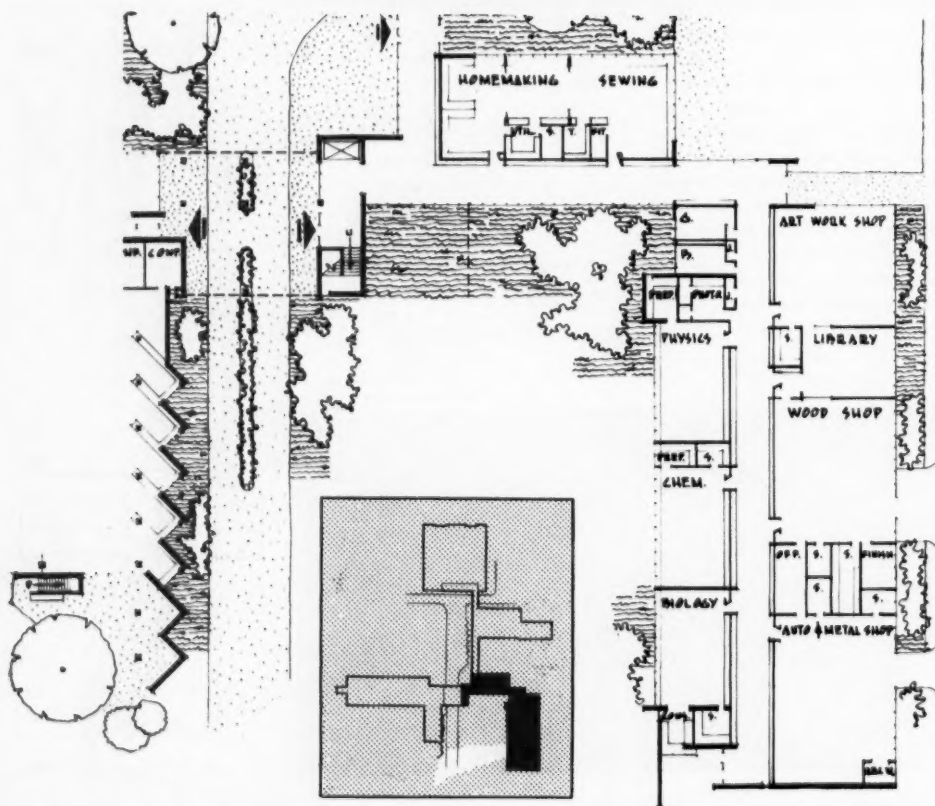
design:

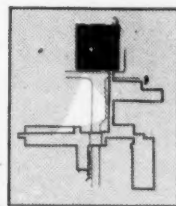
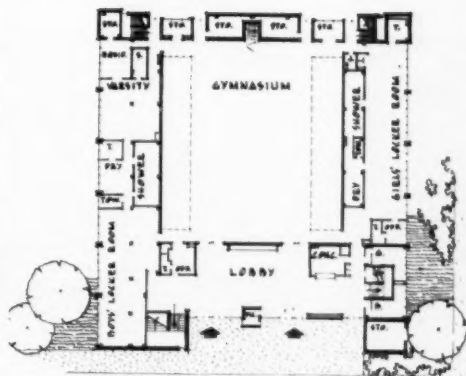
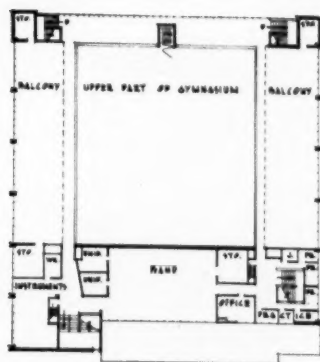
science-arts-crafts form separate wing

Since the educational program called for an extensive amount of science and the arts and crafts, the architects devoted considerable space to these subjects. Provisions were also made for future expansion of the arts and crafts facilities (see master plan on page 63).

These facilities, however, are apparently designed for indoor activities only; the visual opening of the science rooms to a small court affords the only notice of the immediate out-of-doors. This is a distinct improvement, however, over the conventional second story science rooms of the traditional high school.

Kransten Studio





SECOND LEVEL



design:

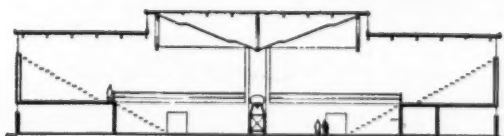
gymnasium provides maximum use of space

Hedrich-Blessing

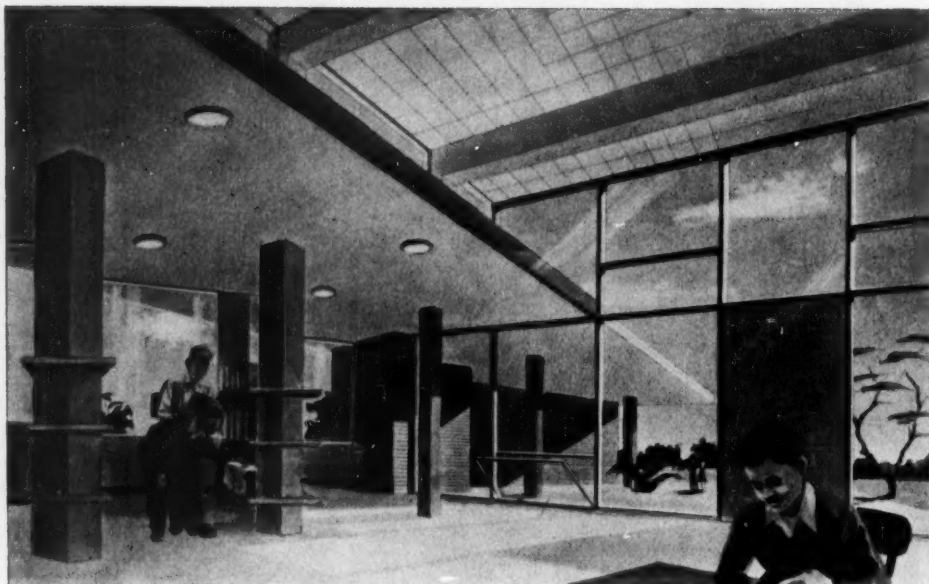


The gymnasium, normally the dominant part of any school building, is hidden from the road at Glenview-Northbrook. As seen from the second-floor corridor in the main building, the gymnasium, coupled with the bus docks, forms another pleasant court.

Designed to provide facilities for a variety of community uses, the large, square-shaped gymnasium building was deliberately oversized in order to provide facilities for the expanding enrollment. Band storage and rehearsal spaces occupy the upper level thereby minimizing the noise associated with this activity.



The gymnasium roof is suspended in three parts from three longitudinally laid steel trusses. Side lighting is brought in by clerestory at the highest points to minimize glare for players and spectators.



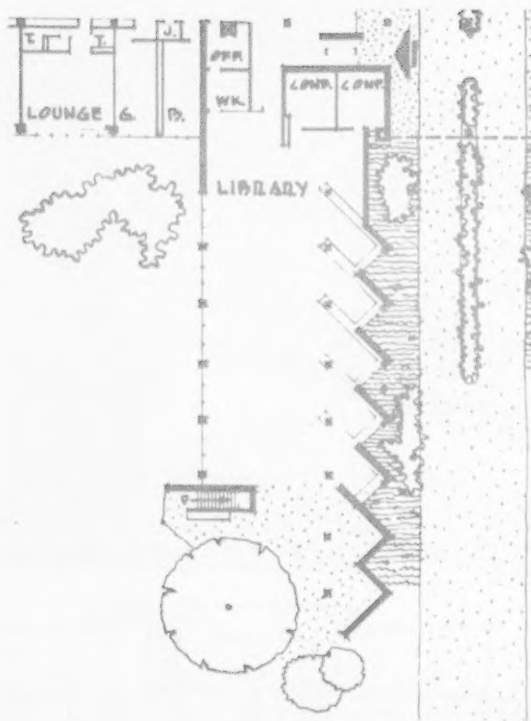
Hedrich Blessing

design:
novel arrangement of library stacks

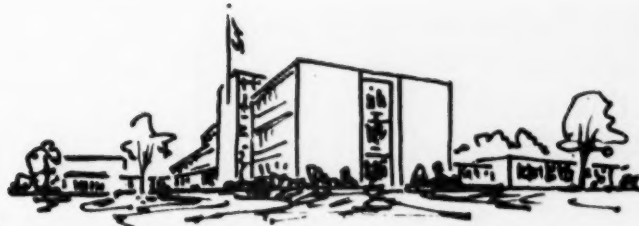
As a result of careful planning with the faculty and consultants from among leading school publishers, the architects designed the library as a spacious, open room intended to create an atmosphere of informality and relaxation.

The stacks are placed at angles, the outside wall ends of which are opened for side lighting. Conference rooms, office and work spaces help make the library an adequate and complete learning center. Some 8-10,000 volumes will be available for use at the opening of school.

Access to the library is relatively direct from all elements of the building except, perhaps, science. Because of its generous use of glass, the view it affords, and its excellent detailing, the library may prove to be one of the most popular spaces in the entire school.



No design has meaning
until it has been translated
in terms of materials.



materials used in the Glenview-Northbrook High School

STRUCTURAL

Reinf. concrete, steel frame, poured
concrete floors, gypsum roof

EXTERIOR WALLS:

Brick Claycraft Colonial Normans
full range
Concrete block back-up.
Radial brick chimney Consolidated Chimney Co.

INTERIOR WALLS:

Concrete block partitions
Glazed tile Arkotex Tile

FLOORING:

Asphalt tile Fletex
Terrazzo toilets and lobby
Wood—gym and stage

FENESTRATION:

Aluminum sash—Lupton Michael Flynn Mfg. Co.

LIGHTING:

Incandescent Smithcraft "Director"; Daybrite
ext. lights; Gotham "Form-
lites"; Solar Light
Fluorescent Benjamin Electric and
Garcy fixtures

HEATING AND VENTILATION:

Control system Johnson Service
Boiler Fitzgibbons
Oil burner S. T. Johnson
Convectors Vulcan, Madine
Force blow heaters, unit
ventilators Trane
Grilles Auer Grilles and Titus Mfg.
Fans American Blower

Plumbing Fixtures American Standard Fixtures
Lockers and Wardrobes Lyon Metal Products Co.
Chalkboard Claridge Products Co.
Program System I.B.M.
Public Address System Stromberg-Carlson
Vault Door and Night Deposit Masler Safe Co.
Kitchen Equipment Illinois Range Co.
Hydraulic Elevator Gallaher and Speck
Folding Gym Partitions Horn Mfg. Co.
Incinerator Joseph Gader Incinerators
Auditorium Seating Heywood-Wakefield
Metal Toilet Stalls Milwaukee Stamping Co. and
Henry Weis Mfg.
Metal Door Frames: School World Steel Prod., Ripped
Archt. metals
Gym Fireproofing Door Corp.



*the citizens want to know if
their dollar buys all it can, but...*

You Can't Judge a School by Its Statistics

How much did your school cost to build? How much did it cost per pupil? The answers to such questions are the bases of much misunderstanding when comparing school construction costs.

What do the figures represent?

by A. L. BECK

Certainly they cannot tell the whole story because there are many variable factors which determine the actual cost of a particular school building.

Some school buildings will be de-

signed with adequate sink, work counter, storage, wardrobe, tack-board and other facilities, while others will be designed with bare classroom shells. This, of course, affects the amount of furnishings needed. One building might be equipped with new furniture throughout, while in another case furniture from the old school might be moved in until the budget permits replacement.

Some school buildings are designed with the idea of reducing maintenance costs to the minimum. Corridor walls in one building may be covered with tile and floors covered with terrazzo; wood may be eliminated as finish material. Another building of similar size may be constructed with corridor walls which must be painted often, floors which will need to be varnished each year, and doors, mop boards and door frames which will need continuous maintenance. Obviously, the cost of construction will be affected.

Initial or Long-Range Expenses

Here the question of initial expense versus long-range expenditures further complicates the task of arriving at a good basis of comparison of school construction costs. Savings made over the life of the first building in terms of lower maintenance costs justify the original expenditure. High maintenance costs of the second building may mount up until the cost of the two schools becomes approximately equal.

One factor not considered when comparing school costs on a pupil basis is the number of square feet allowed per pupil. This varies considerably, as shown in the accompanying tables. One school will provide a combined auditorium-gymnasium-cafeteria, while another will provide three separate rooms for these facilities. A third may have easy access to such large group spaces in the school neighborhood.

Before we can present a true picture of comparative school building

Oregon School Building Costs Since 1950

	Elementary Schools semi-fire-resistive	Elementary Schools combustible	High Schools semi-fire-resistive	High Schools combustible
Av. contract cost per square foot	\$9.92	\$8.84	\$9.27	\$8.86
Range				
High	15.23	10.72	13.53	11.28
Low	6.19	5.81	6.35	6.71
Av. contract cost per pupil	609.32	661.85	1169.11	1164.86
Range				
High	908.33	1315.62	1907.69	1930.00
Low	411.00	339.40	830.30	715.21
Av. no. of square feet per pupil	63.2	75.6	125.4	131.5
Range				
High	84.2	145.4	154.1	181.5
Low	44.5	43.0	89.6	97.5

Semi-Fire-Resistive Elementary School Costs

School	Contract cost per sq. ft.	Contract cost per pupil	Rank	Square feet per pupil	Rank
A	\$15.23	\$677.94	3	44.5	8
B (X)	13.30	908.33	1	68.2	4
C	10.75	573.33	4	53.3	6
D (N)	9.76	813.96	2	83.3	2
E (N)	8.31	411.00	8	49.4	7
F (X)	8.15	438.12	7	53.7	5
G (X)	7.68	530.00	5	69.0	3
H (X)	6.19	521.00	6	84.2	1
Ave.	\$9.92	\$609.32		63.2	

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costs, we should also analyze the structures in terms of their fire-resistant qualities, nearness to the labor market, certainty of material supply, the degree of competition in bidding and the time of the year the contract was let.

Fire Resistance

A fire-resistant building is one with fire-resistant bearing and partition walls, floors, stairways and ceilings. Such a building may have wood finish, wood or composition floor surface, and wood roof construction over a fire-resistant ceiling. A semi-fire-resistant building is one with fire-resistant bearing walls, corridors and stairways, but with combustible floors, partitions, roofs and finish. A combustible building is all frame or fire-resistant veneer over a wood frame, or fire-resistant bearing walls, but otherwise of combustible construction. This data must be known to compare building costs, if valid comparisons are to be made.

Oregon Schools

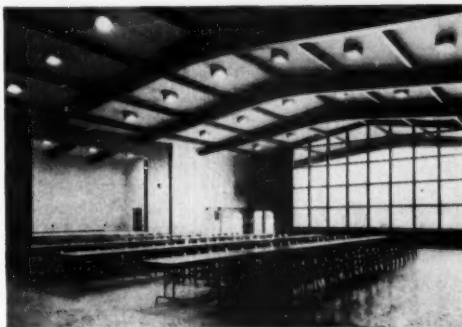
Grouping and comparing schools contracted in Oregon since January 1, 1950, shows the futility of trying to make a one-to-one comparison due to the action of several variables in determining the contract cost figure.

Contract cost figures are used for comparative figures because total costs reflect a great range in expenditures on site improvement or equipment. Two buildings of nearly identical contract cost show a material difference in total cost if one building is constructed on a level site and the other on a site which needs considerable fill and grading.

The accompanying tables show that while the average construction per square foot and construction per pupil costs are very close for both semi-fire-resistant and combustible buildings, the range is wide. They also illustrate that the building which is most expensive in terms of contract cost per square foot is not necessarily the most expensive on a per-pupil basis nor does it allow more space per pupil than schools built for a lower contract cost.

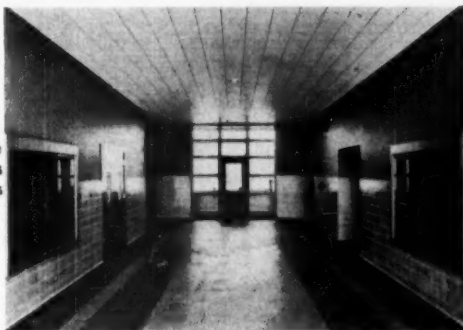
Mr. Beck is assistant school building consultant for the Oregon State Department of Education.

Many variables effect statistics on school building costs: Built-in facilities or bare classroom shells



Multi-purpose room or separate large group areas.

Easy maintenance or continuous maintenance costs



New furnishings and equipment

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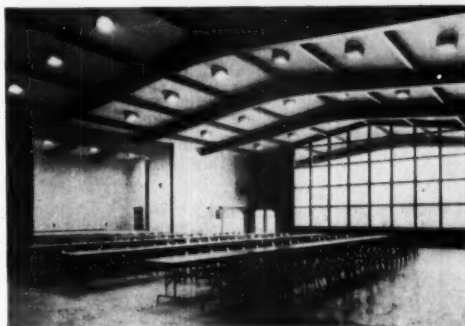
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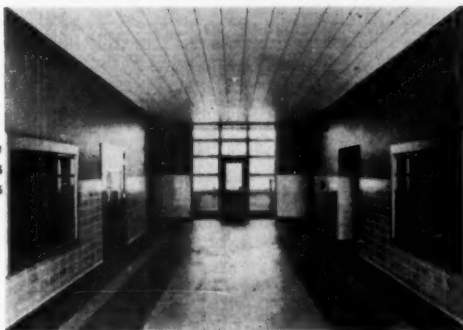
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what does an architectural competition mean to education?

by JOHN LYON REID

Many of you know Dr. Frank Hart, Professor Emeritus of Education in the University of California at Berkeley, who once said, "There are enemies of education abroad in the land tonight." Who are these enemies?

"Enemies Abroad"

There are those who want teaching and education to conform to accepted, conservative, and time-proven practices and beliefs. They advocate the return in educational policy to a teaching of the fundamentals, the 3 R's. There are also those who wish education to prepare a graduating student for immediate maximum efficiency in commerce and industry—such students show an immediate profit for employers. In short, there are some who through prejudice or conviction want education to do something more tangible than the slower, more painstaking job of developing those elements of character, interest and personality in the child that in the long run make him a bet-

ter citizen, a better individual and a greater asset to the world.

There is another group of critics, whose criticism is directed at school plants. They seem to attach little value to the continuing improvements in school building. I believe that good school plants and sound educational practices are inseparable. Those school architects who are worth their hire believe that when they design a good school they are directly or indirectly contributing to improvement in education; this belief inspires their efforts and provides the driving force of that great body of school architects whose major professional interests and efforts are dedicated to better school design. Evidence of the existence and activity of this group of critics is to be found in the continual resurgence of the demand that public bodies adopt the expedient of stock plans. The stock plan provides neither quality nor economy.

The vitality, activity and strength of these groups of destructive critics throughout the United States have succeeded in placing our educational system on the defensive.

Educating Public

Competitions, such as the one sponsored by THE SCHOOL EXECUTIVE, are doing an unparalleled job of educating the public to the true value of our educational system, and of the joint efforts of architects and educators to improve it. But this task of overcoming our enemies is the lesser one; the more important objective of this competition is the providing of a motivating force and a

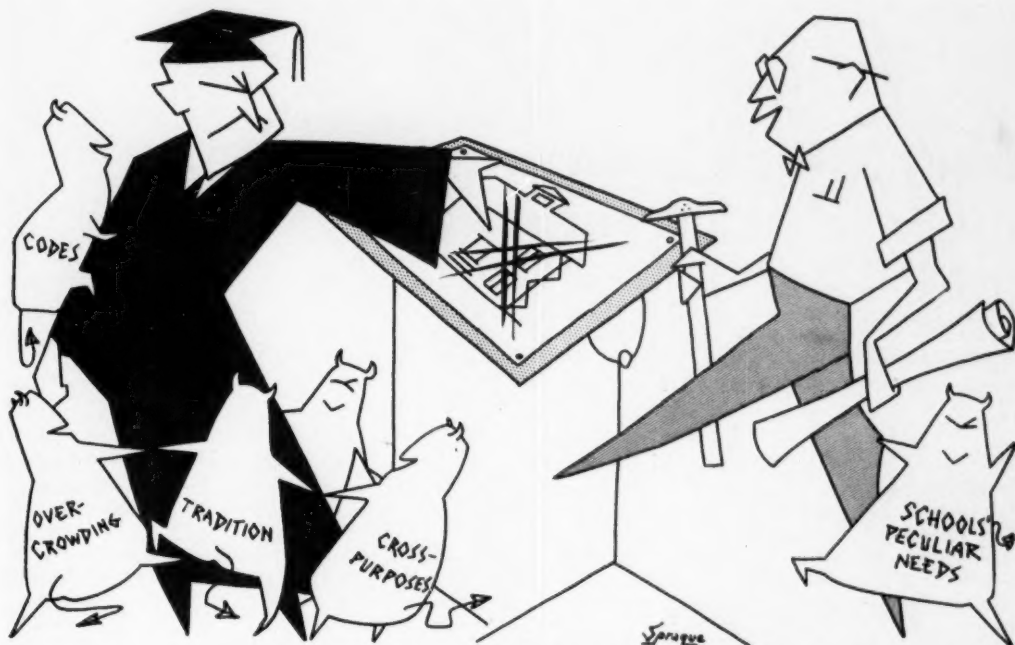
source of ideas and inspiration working for continuing improvement.

Groups New Ideas

Today, one is sometimes regarded with suspicion who praises the great opportunities of America, our democracy, and the competitive system that is so important to us. These are, however, characteristic of our way of life. Competition provides well-recognized and obvious benefits—opportunities for comparing one solution to another of structural forms, space arrangements and new materials. Where can one find a better opportunity to examine fresh ideas in curriculum embodied in new design ideas in school plants? All these represent a powerful force working for improvement in school plant and education in every community in America. Of great importance to me is the obvious concern of architects and educators for economy in construction—the best is not always the most opulent; art often thrives on economy.

These proven and obvious advantages of the competition as an institution do not touch on the most significant nature of the competitive spirit. Competition and comparison are instruments in the pursuit of perfection. Perfection is a challenge; it can be pursued but not achieved. The desire for perfection is a dominant characteristic of civilized man. This search, as represented by a competitive comparison in one of man's highest forms of intellectual and spiritual endeavor, speaks for our civilized life in its highest form.

These words of Mr. Reid, architect of San Francisco, are excerpted from an address he gave at the program announcing the winners in The School Executive's Second Annual Competition for Better School Design during the AASA Convention in Atlantic City, February 14, 1953.



Surrounded by gremlins who inhibit his ability to plan imaginatively, the harassed school administrator flees from the tangle of school building problems and tells the architect, "You figure it out."

MUST THE CONTEMPORARY SCHOOL ARCHITECT DESIGN THE PROGRAM, TOO?

BECAUSE of the dearth of educational planning which usually precedes the design of school buildings, many school architects are compelled either to rely on time-tested architectural clichés, or attempt to fashion an educational program out of which their design may follow. Symptoms of this unhappy state of affairs abound throughout the country. The materials submitted to the 1952 SCHOOL EXECUTIVE Competition for Better School Design are typical. Three or four basic design patterns appear and reappear throughout the materials. School architects must either accept the general situation and confine their creative efforts to technical considerations, or add educational consultants to their staffs and usurp the planning role which only the community can properly undertake.

Despite the handicaps now facing school architects, creative design is being achieved. The May and June Planning Sections are devoted to an analysis of such creative design. On the following pages appear such facets of design as open planning, scale for occupants, site development, community use, separation of elements, and technical features.

This is the first of a 2-part analysis of the materials entered in THE SCHOOL EXECUTIVE's Competition for Better School Design. Next month's Planning Section will examine such features as building interiors, use of corridors as education space, social spaces, storage spaces, college and specialized buildings, and construction materials.

despite the dearth of educational planning creative designs have been achieved

by KARL T. HEREFORD

Associate Editor, THE SCHOOL EXECUTIVE

Although the 118 designs entered in the Competition for Better School Design were of the country's best, they nevertheless revealed a dearth of educational planning. In only a few instances was the educational planning obviously the equal of the architectural planning—in no case was it superior to it.

Many of the designs were hampered by arbitrary considerations such as out-dated local and state building codes and standards. In some cases, the location of toilets and storage facilities, for example, had to follow from the prejudices of state department regulation rather than from the activities of the building's occupants.

Despite such unnecessary restrictions, the overall quality of design evoked considerable praise from the jury panel. Reactions of those thousands of educators and architects who viewed the seventeen winners' panels at the recent AASA convention reinforced this praise.

Imitation of Basic Designs

As in all fields of endeavor, however, we learn from each other. The 118 school building designs reflect such practice. A considerable amount of imitation—some good, some not so good, some imaginative, some without conviction—showed up. The total number of entries could easily be broken down into three or four basic designs. In the great majority of entries, the ultimate design resulted primarily in efforts to achieve natural lighting and to adapt to climatic conditions.

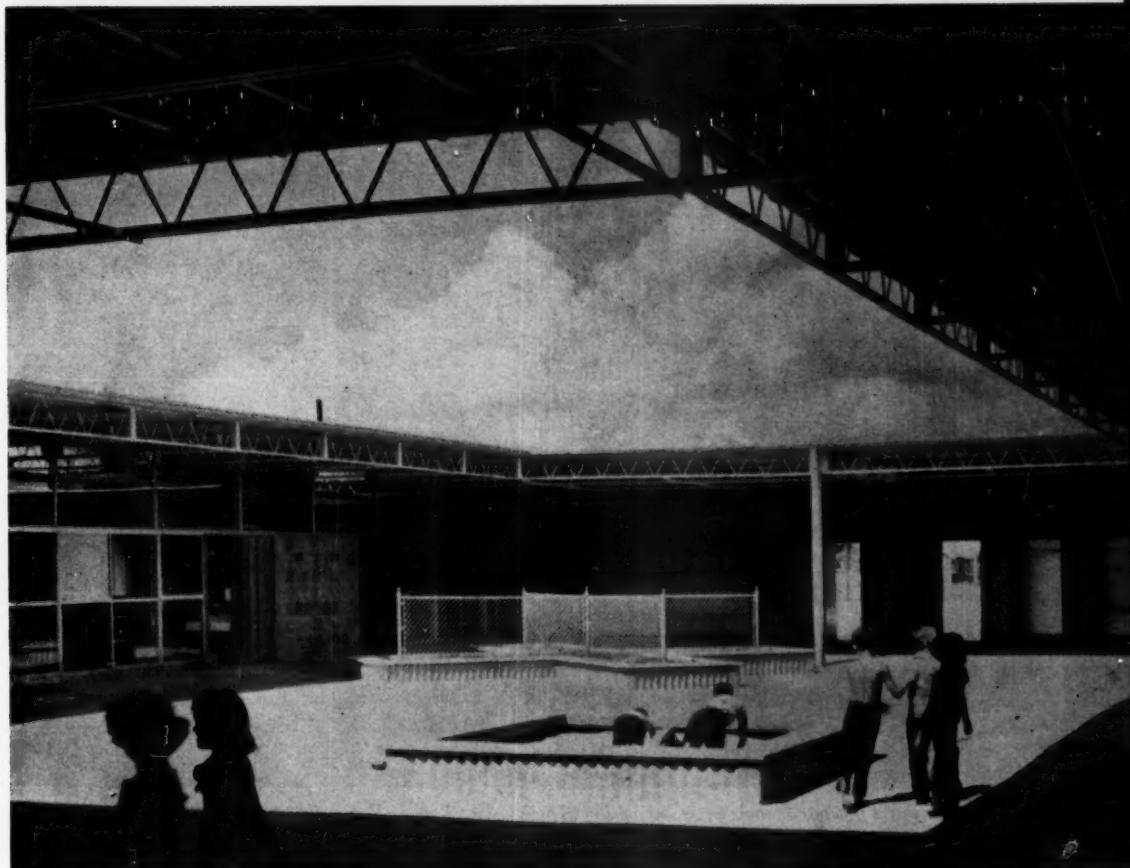
In only a few instances was design primarily a creative result of non-technical considerations such as emotional climate, scale, and social living requirements of the occupants. Little consideration was given to facilitating the group processes which should undergird a modern program of education. In elementary schools, all classrooms, with the frequent exception of the kindergarten, were designed on the assumption that children at all grade levels by nature and by program require the same size and shape spaces for learning. Little attention was paid to corridors—they continued to be long, wainscotted tunnels. Few efforts were made to use the out-of-doors; site development remained an afterthought.

In secondary schools, little if any re-study of the secondary school program was in evidence. Multi-story structures, housing departmentalized subject-matter-oriented programs, predominated. Social living, when accounted for in design, usually appeared as special spaces such as lounges, patios, lobbies or conference rooms. Classroom detailing remained adapted to the lecture type situation. As in elementary school design, there persisted a monotonous repetition of same sized classrooms. Even in the subject-matter-centered program, differences in group sizes usually went by un-imaginatively facilitated.

Architects Handed Educators' Role

The responsibility for most of this unimaginative design must be laid at the feet of the local community and, in particular, boards of education and their chief school administrator. Under pressure of expanding enrollments, ignorant of what constitutes good schools, reluctant to involve their own people in cooperative planning, over cautious toward program changes, and sometimes lethargic, boards of education and school administrators were prone to demand that their architects not only design a building as such, but the educational program which it is to house. Architects by training or experience are not equipped to fashion a community's educational program. Imitation of practice elsewhere becomes, therefore, predominant. It is much simpler to cut the same pattern from familiar material than to weave a brand new garment. Consequently, one so-called modern school building begins to look like another.

Creative design, however, has been achieved despite the handicaps. A few pace-setters in school building design may emerge from the 1952 Competition materials. In those instances where architects have grasped the educational concept, understood the real economy of the situation, and mastered the architectural considerations, outstanding design features have resulted. Seven such examples follow. These, in turn, are followed by additional noteworthy examples in the design classifications analyzed in this issue.



Enclosed play court in the West Columbia, Texas, Elementary School; Donald Barthelme and Associates, Architects.

opening the building to the outside

Nearly one half of the competition entries attempted to open up the school building by using large glass areas and thereby achieving a continuity with the out-of-doors. Floor to ceiling glass walls with immediate access to an enclosed play court, as shown above in the West Columbia, Texas, Elementary school, is an outstanding example of this phase of open planning.



Kindergarten in Alice Birney School, Rivera School Dist., Los Angeles; Daniel, Mann, Johnson and Mendenhall, Architects.

opening the building on the inside

Because of rigid fire, safety and other regulations, continuous flow between classrooms, though educationally desirable, has in most communities been prohibited. Permanent partitions between classrooms continue to be the rule. As an effort to increase interior flexibility and to derive educational use of corridor space, such permanent partitions were eliminated in the Alice M. Birney Elementary School shown above. Sound baffles were a part of the design, reducing the much feared acoustical interference between classrooms.



Opening into play court of Pre-School Building, Beverly Hills, Cal.; Paul Robinson Hunter, Architect.

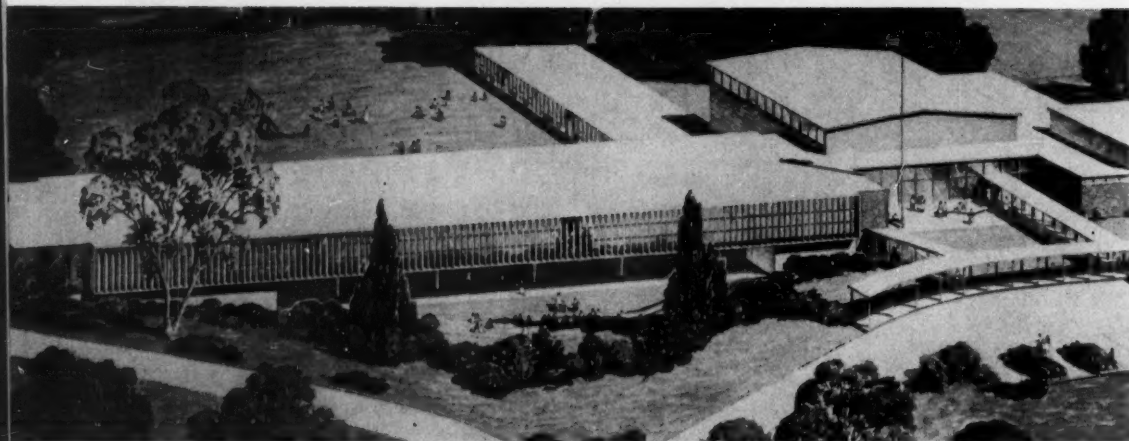
scale for occupants

Two points of view concerning appropriate scale for occupants emerged from the competition materials: little schools for little people with scaled-down furniture and equipment; and spacious interiors with similarly scaled-down furnishings. The extent to which either point of view makes possible a superior emotional environment remains to be proved. The cubage of most schools entered in the competition was decided not by attempts to achieve an appropriate scale but by predetermined formulas derived from lighting and ventilation factors.

A few imaginative attempts to blend technical factors with scale were made. Note the spacious, yet carefully scaled, environment for nursery school children in the Pre-School Building pictured above. An excellent example of the little schools for little people approach is found in the Sweeny Elementary School, below.

Outdoor corridor of the Sweeny, Texas, Elementary School; Donald Barthelme and Associates, Architects.





Rendering of the South Elementary-Junior High School, Newark, Ohio; Joseph Baker and Associates, Architects.

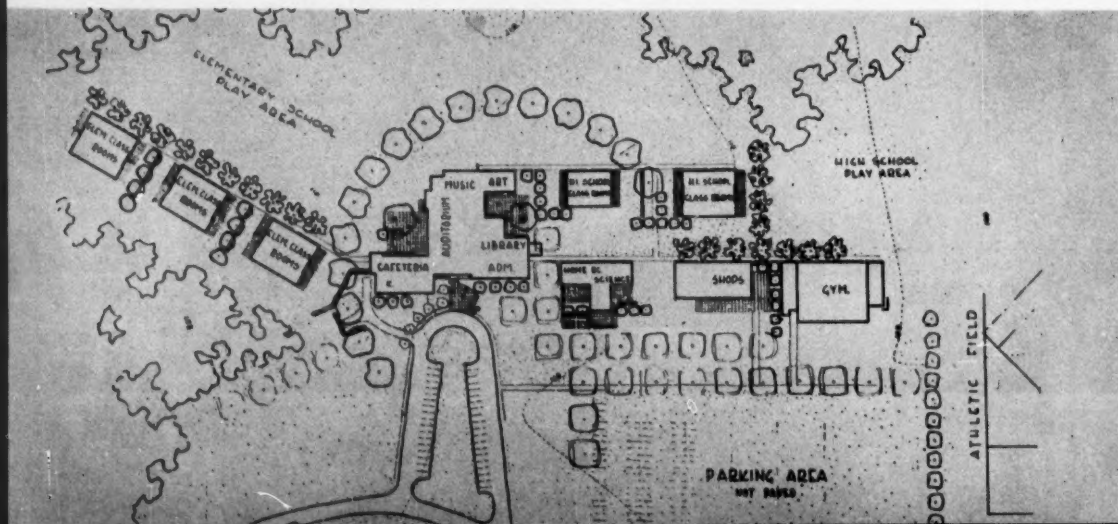
handling the site

For the first time, architectural practice has been more concerned with the location of elements of the school plant on the site, and increasing the educational usefulness of the site, than with the moving and hauling of dirt from one portion of the site to another. Gulleys, streams, woodlands, slopes and rock deposits were in some instances left intact or capitalized upon to enhance their educational usefulness. In elementary schools, the slab on grade seems well established. Informal play areas, some sheltered, some usable only on clear days, appeared in abundance. In secondary schools, location of mass spaces for spectator sports still stereotypes many otherwise variedly useful sites.

An interesting example of creative design is found in the above South Elementary-Junior High School. An otherwise difficult terrain was put to sound educational use. It provides both a natural separation of elementary and junior high school units and a covered play and multi-use area.

Another solution to the problem of separation of elements is the campus type plan, shown below, for the Wagener 12-Year School. Elementary classrooms, and adjacent spaces for little people, are separated neatly from the classrooms, shops, gymnasium and play areas for older youngsters by a central facility housing those elements shared by all age groups.

Site plan of the Wagener 12-Year School, Aiken County, S. C.; William G. Lyles, Bissett, Carlisle and Wolff, Architects.



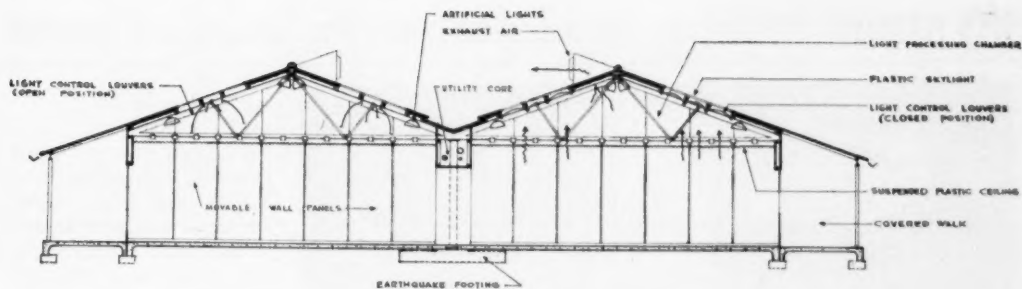


photo by Chas. R. Pearson

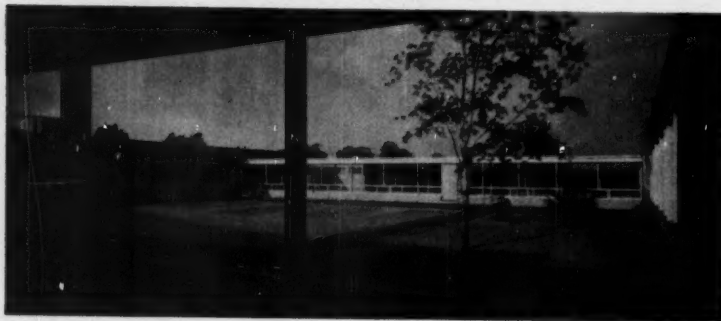
Top lighting in South Central Junior-Senior High School, Seattle, Wash.; Ralph Burkhard, Architect.

technical features

By custom and often by regulation, space sizes and shapes are dictated primarily by efforts to introduce natural lighting from one or more lateral sources. Louvers, overhangs, and other devices have been used to screen against sky glare and solar heat gain. Skylights and other overhead lighting techniques have apparently proved unsatisfactory because of difficulty in maintenance. No entries in the 1952 Competition attacked the problem wholly satisfactorily. Direct overhead light source, louvered against glare and heat gain and evenly diffused throughout the instructional space, failed to appear.

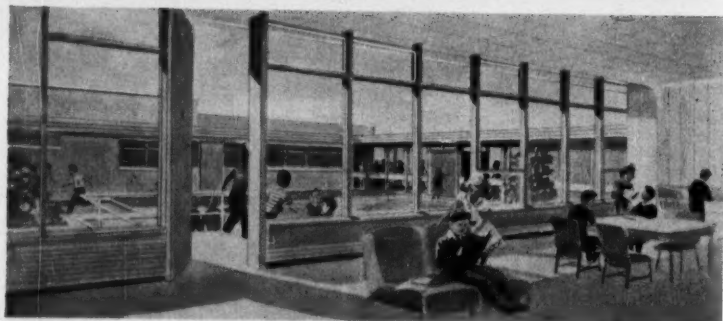
Only a few entries approached this type of solution. One, the South Central Junior-Senior High School shown above, used skylights, monitored artificial lighting, and a luminous ceiling to bring in direct overhead light with an even diffusion of about 50 foot-candles. Though this particular solution used an expensive section, no portion of the resulting classrooms are limited in use because of deficient or varying light.

OPEN PLANNING: reminding the child that school is more than four walls of a classroom



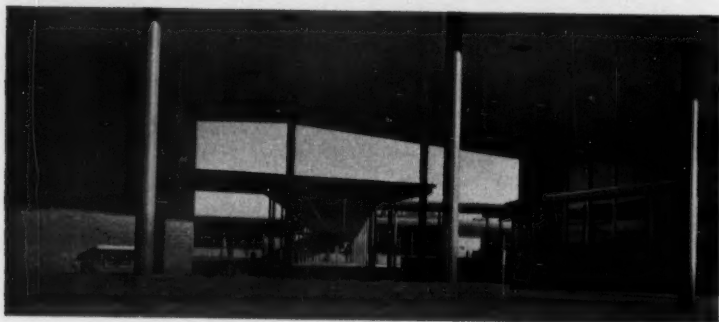
Using large glass areas, The Architects Collaborative were able to obtain visual integration of the separated elements in their Peter Thacher Junior High School design, Attleboro, Massachusetts.

Esra Stoller photo



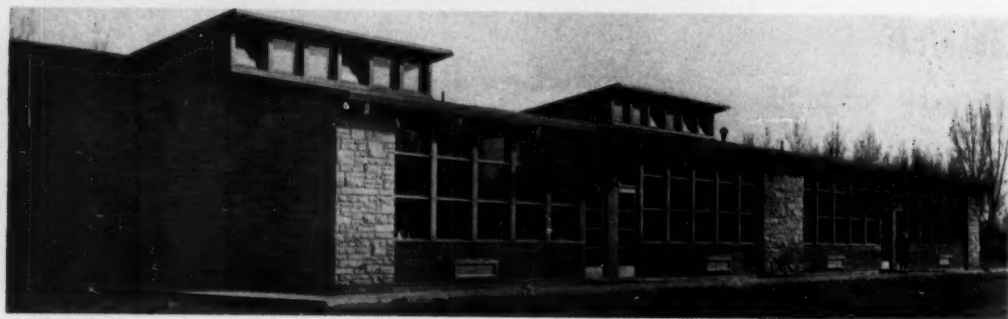
Perkins and Will enhanced the relaxed and informal library atmosphere in the Woodlawn Elementary School, Schenectady, New York, by opening the outside wall onto an adjacent court.

Hedrich-Blessing photo

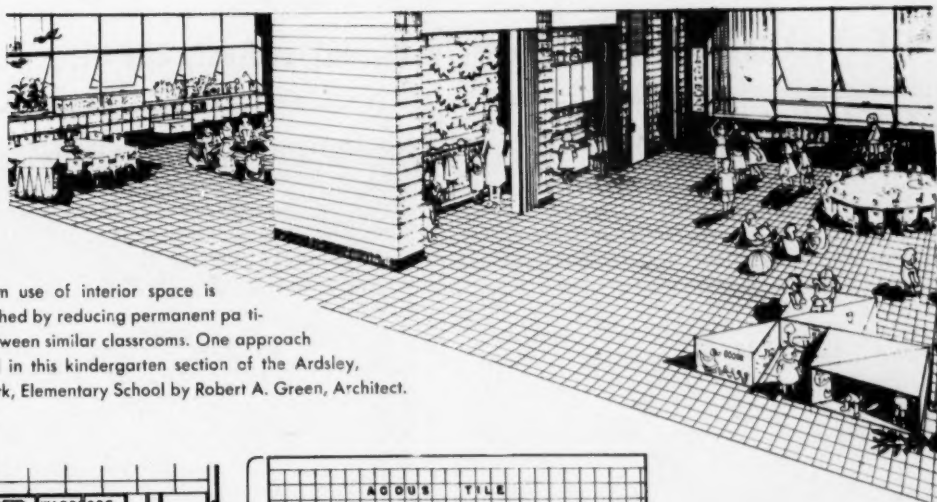


The Arroyo Grande, California, High School, designed by the firm of Daniel, Mann, Johnson and Mendenhall, is characterized by the feeling of spaciousness it creates for its occupants.

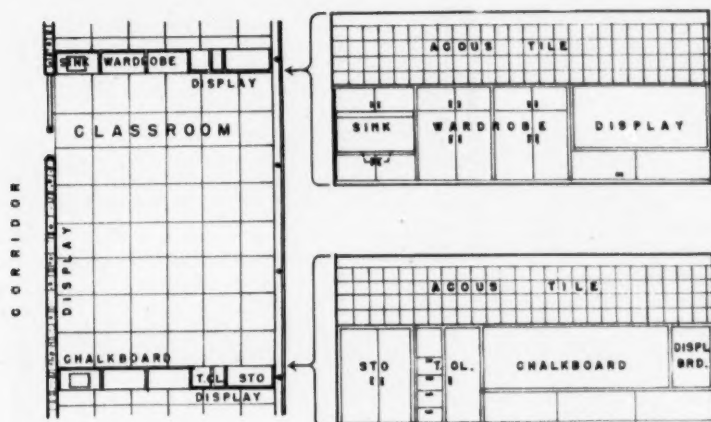
photo by Olson Spencer & Associates



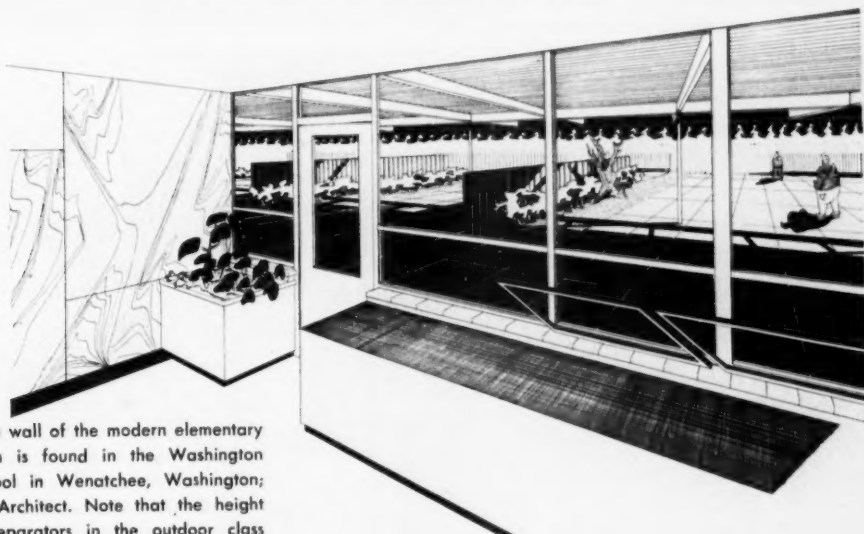
Establishing continuity of interior spaces with the out-of-doors is characteristic of modern design. A typical exterior is this portion of the Homedale, Idaho, Elementary School by Culler and Gale, Architects.



Maximum use of interior space is approached by reducing permanent partitions between similar classrooms. One approach is found in this kindergarten section of the Ardsley, New York, Elementary School by Robert A. Green, Architect.

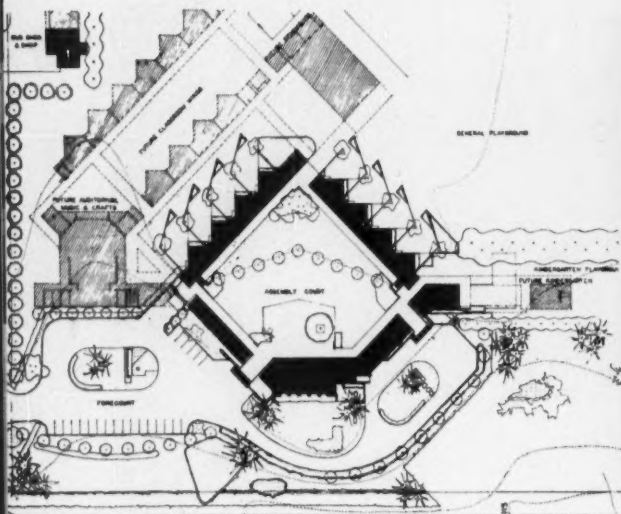


Vision strips between classrooms and the use of movable storage walls are other approaches. McCleod and Ferrara designed these storage walls for the Hillendale Elementary School, Maryland. When moved, there is a free flow of space between adjacent classrooms.



A typical outside wall of the modern elementary school classroom is found in the Washington Elementary School in Wenatchee, Washington; John Maloney, Architect. Note that the height of the space separators in the outdoor class areas does not prohibit a view of the entire area.

SITE: architects strived to work with, not against, the site



A master site plot plan providing for future units makes possible the optimum location of present structure on the site. Economy of space is the keynote of this plot plan for the Moss Landing, California, Elementary School, designed by William Henry Rowe.

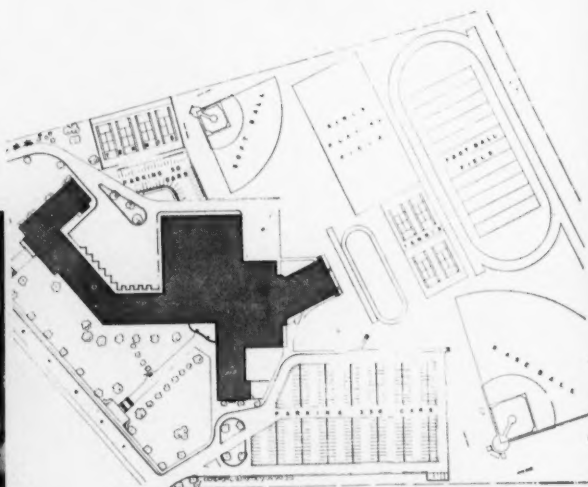
The aesthetic qualities of a naturally beautiful site can become an integral part of school design. Witness the happy wedding of school and site in the Alice M. Birney School, Rivera, California. Daniel, Mann, Johnson and Mendenhall, Architects.

Photo by Olen Spencer & Associates



When not compelled by convention to move a lot of dirt, architects were able to design schools which grew from the natural contours of the site. A particularly interesting example is the Perry Sound High School in Ontario, Canada; John B. Parkin Associates, Architects.

Panda photo

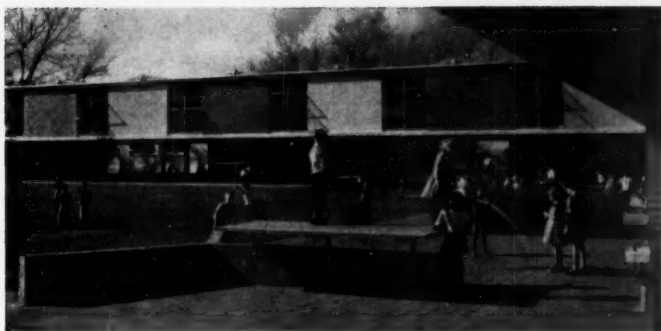


Recognition of the various school-community uses of the site is typified by this site plan of the East Providence, Rhode Island, Senior High School; Milton E. Nelson, Architect. Note the careful provision for parking.

SCALE: an intangible difficult to achieve

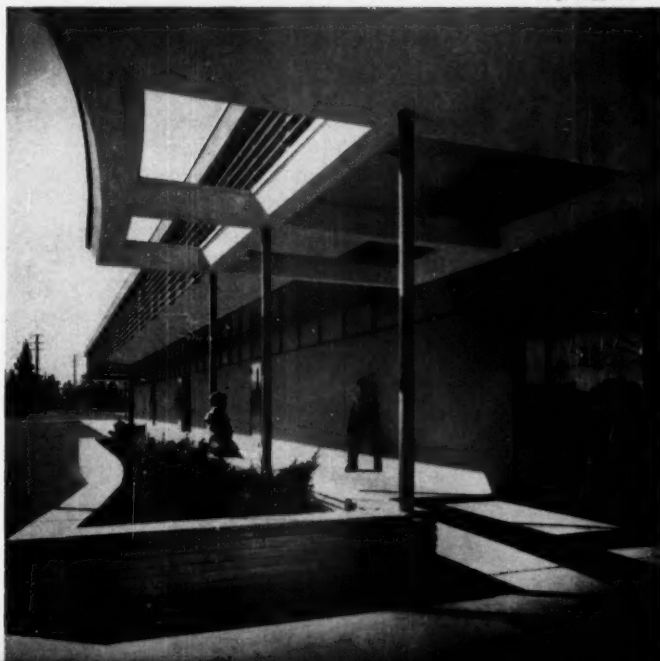


Imaginative scaling of furniture and equipment (note position of the clock) and a sloping roof was Paul Robinson Hunter's design solution for little people in this Pre-School Building, Beverly Hills, California.
photo by Robert C. Cleveland

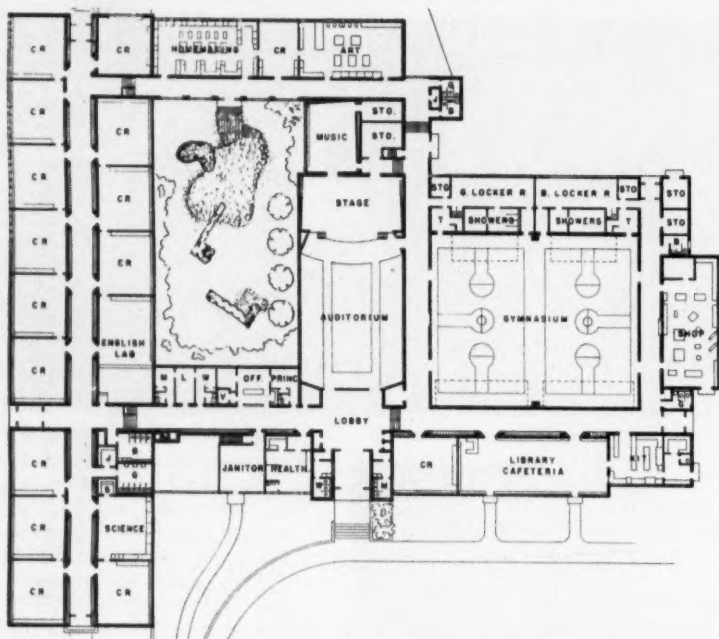


Height of the overhang, relation of building to the site, and careful detailing of outside facilities helped to scale these buildings for their occupants. Note how each seems to hug the ground. Above: Sweeny, Texas, Elementary School; Donald Barthelme and Associates, Architects. Right: Savanna Elementary School, Stanton, California; H. L. Gogerty, Architect.

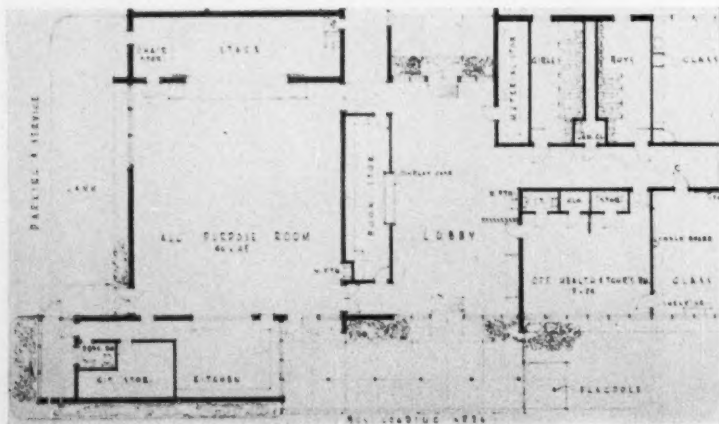
D. J. Higgins photo



COMMUNITY USE: complicating factor in school design



Schools no longer are used solely by children. After-school-hours use by various community groups has become an established practice. To facilitate this use, yet hold operating costs to a minimum, architects have tried to consolidate large group spaces. A typical arrangement in a new secondary school is this floor plan of the Gordon C. Swift Junior High School in Watertown, Connecticut, designed by Warren Ashley, Architect. The "academic" portion of the building may be sealed off when the large group spaces are used after school hours.

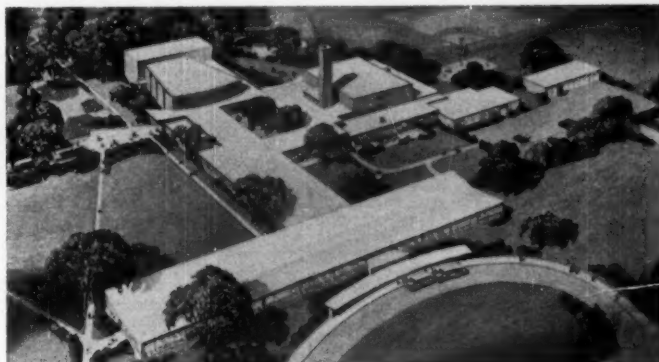


A similar arrangement of facilities employing multi-use spaces for a variety of adult and child uses is found in the floor plan of the Alleghany Township Elementary School, Pennsylvania, designed by the Buchart Engineering Corp.

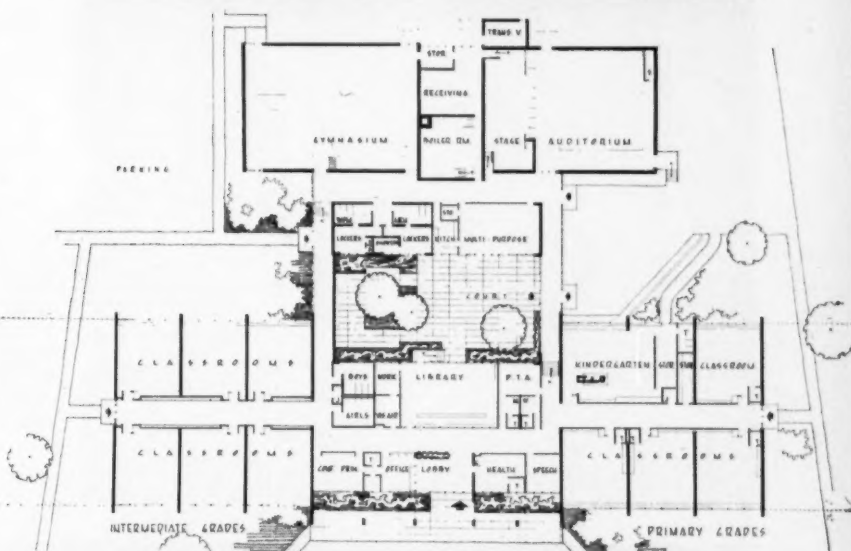
SEPARATION OF ELEMENTS: an attempt to provide for age and activity differences

Wolf and Hahn, Architects, reduced interference between noisy gym and shop areas and the academic wing of their Emmaus, Pennsylvania, High School by locating them at opposite ends of the building. Auditorium and other spaces for school-community use are nicely grouped between the two opposing elements.

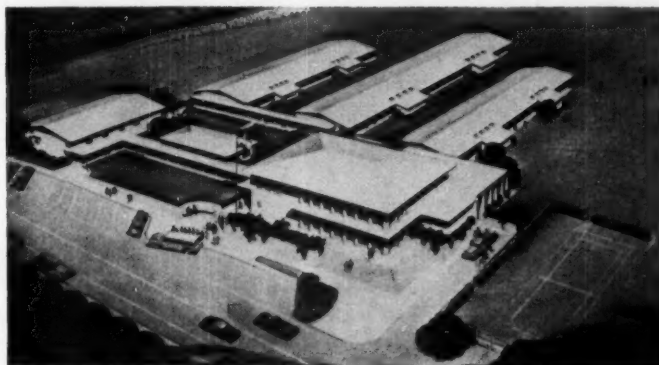
Beebe Studio photo



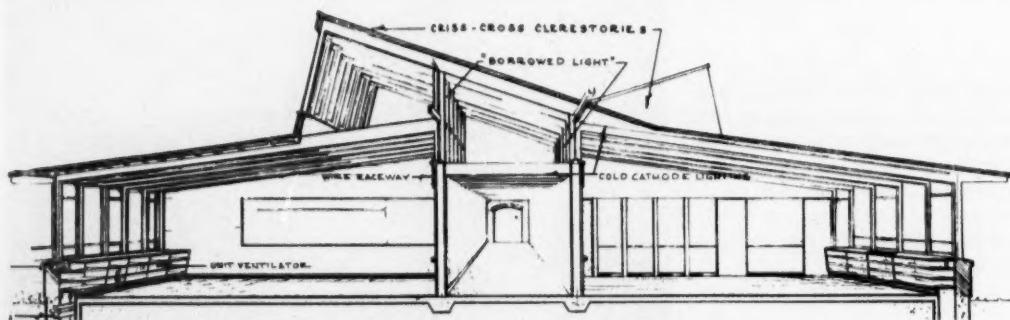
Differences in play and study requirements caused Perkins and Will to separate the upper and lower elementary age groups by common central facilities. In their Woodlawn Elementary School, Schenectady, New York, all of these elements are housed under one roof.



Kenneth H. Hess, Architect, achieves the same age group separations in the Loma Vista School, California, by using a finger plan with separate wings for the different groups.



TECHNICAL FEATURES: heavy emphasis on lighting and ventilation



Most architects brought daylight into their buildings by side lighting. Because of the increasing floor space in classrooms, clerestory was extensively used. Typical section of a double-loaded corridor is shown above in the Hamilton, Massachusetts, Elementary School, designed by Anderson-Nichols and Company, Architects.

With increased use of clerestory, relatively complex classroom sections appeared. The interiors of such classrooms are often interesting. A good example is the Ellinwood, Kansas, Elementary School; Ramey and Himes, Architects.

photo by Julius Shulman

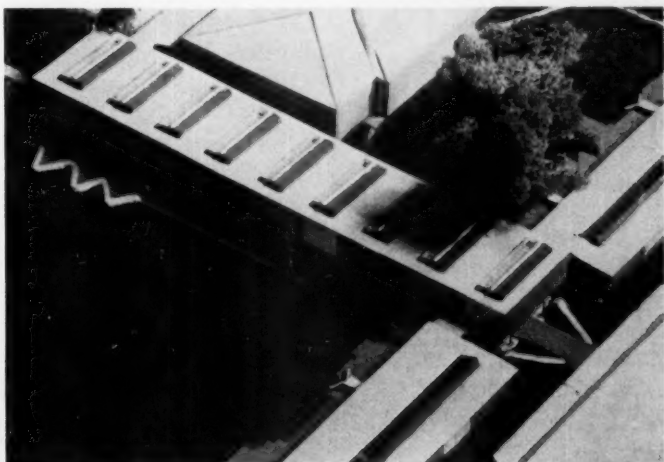


A good exterior view of clerestory (which in the above example approaches top lighting) is seen in the Cherry Lane School, Long Island, New York. LaFarge, Knox and Murphy, Architects.

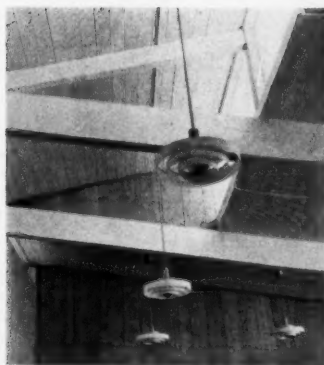
Ben Schnall photograph



A typical clerestory classroom section, using the single-loaded corridor, is shown above in the Ellinwood, Kansas, Elementary School. (Photograph of classroom shown on facing page.)



Though desirable in order to achieve a maximum use of interior space, designs for top lighting did not appear often in 1952. The Sweeny, Texas, Elementary School, designed by Donald Barthelme and Associates, was a notable exception.



An interesting close-up of effective clerestory light with supplementary artificial light is shown above in the library of the Northport, Washington, Union High School; Kenneth W. Brooks, Architect.

Scamahorn Studio photograph



Problems of skylare and solar heat gain were attacked in a variety of ways. Particularly effective was the use of fixed exterior louvers shown above in the El Rancho High School, Rivera, California; William Harrison, Architect.

Barton's photo

SPOTLIGHT

news of the educational field

Survey Reveals Growing Shortage of Elementary School Teachers: 160,000 New Teachers Needed This Fall; 35,000 Graduate in June

WASHINGTON, D. C.—September's expected supply of teachers will not begin to meet the expanding enrollment of children in America's elementary schools. The National Commission on Teacher Education and Professional Standards of the National Education Association reports that 160,000 new fully-trained teachers will be needed in the lower grades this fall.

Stacked up against this demand is an expected supply of only 35,636 fully-trained elementary school teachers who will be produced this year by the colleges. And, says the Commission, there is no guarantee that all of these will go directly into the classroom. They may choose other professions, some of the male graduates will be claimed by the armed services, or some may quit—as 60,000 do annually—after a short stint in the classroom.

T. M. Stinnett, executive secretary of the Commission, and Ray C. Maul of the NEA Research Division point out that unless schools, parents and interested citizens everywhere make "unusual efforts" to furnish better salaries, better working conditions, a fair workload and a respected place in the community for such graduates, many of the nation's children will be shortchanged on their education.

The Commission breaks down its help-wanted figure of 160 thousand in this way: 1½ million more children will enroll in school this year; at least 20,000 new teachers will have to man the new classrooms to be built for these newcomers-to-school; 10,000 more teachers should be added to relieve the overcrowding and to eliminate the half-day sessions now found in many areas; another 10,000 should be hired to give instruction not now included in many elementary school programs; 60,000 now teaching in the classrooms are not wholly prepared to handle the job, and should be replaced or given further training; and 60,000 quit every year. Moreover, elementary school enroll-

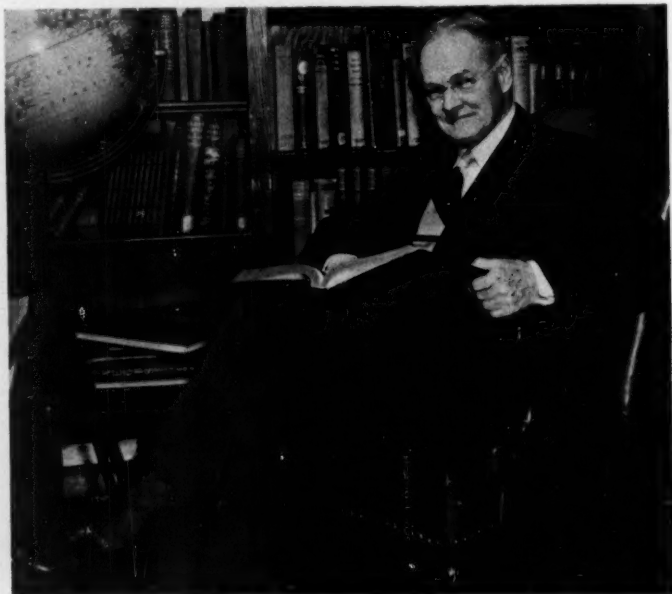
ments will increase each year by at least 1,000,000 children through 1957.

The profession of elementary school teaching will be a "customers' market" for years to come. Even now, according to the Commission, "representatives of some of the better school systems are going halfway across the country in search of well-trained elementary school teachers. This competition will grow keener."

Although its report covers mainly the elementary school demand and supply picture, the Commission finds serious shortages developing also in the high schools, particularly in the fields of mathematics, science, agri-

culture, industrial arts and boys' health and physical education. Home economics teachers, well-trained women in the health field and librarians have been in short supply for years.

The wave of larger classes now surging through the elementary schools will hit the high schools, says the Commission, before the needed number of teachers can be prepared. Only 55,000 possible candidates can come from the colleges in the spring and summer of 1953, and their ranks will be depleted by the armed forces (more than half of the annual crop of potential high school teachers are men); by students passing up teach-



Dr. George Blakeman Lovell, retiring in June as headmaster of Hopkins Grammar School in New Haven, Connecticut, is shown in the library of the 293-year-old country day school founded 40 years after the Pilgrims landed. Dr. Lovell, nationally known in the field of secondary education, has been headmaster for 36 years.

ing for other professions and by women graduates who choose the kitchen rather than classroom.

Melbo New Education School Dean

LOS ANGELES, CALIF.—Irving R. Melbo, professor of educational administration at the University of Southern California since 1939, will become dean of the School of Education there. The appointment, effective September 1, was recently announced by University of Southern California President Fred D. Fagg.

Dr. Melbo, nationally known consultant on problems of school administration, supervision, housing and finance, has served as an advisor to administrative staffs and boards of education throughout the country. He is the author of several books on education.

National School Lunch Program Sets New High

WASHINGTON, D. C.—A total of 9.9 million children in almost 57,000 schools are being served by the National School Lunch Program this year. This establishes a new record 5.8 per cent above participation in the 1951-52 school year, which was the previous high.

The appropriation for the current year is \$83.4 million, of which over \$67 million is scheduled for apportionment to the states in cash. The balance is being used to purchase commodities that help meet specific nutritional requirements for schools participating in the program.

Senator Wayne Morse to Introduce Bill to Guarantee Fair Procedure in Senate Investigations of Education

CHICAGO—Different interpretations of the significance of Congressional investigations of colleges and universities were presented to the 750 faculty leaders and administrators attending the eighth national Conference on Higher Education here. The conference was devoted to an examination of critical changes and conditions which will affect higher education in the next decade.

Dean Rusk, president of the Rockefeller Foundation in New York



Dr. Herold C. Hunt

Herold C. Hunt Appointed to Harvard Faculty

CAMBRIDGE, MASS.—Dr. Herold C. Hunt, General Superintendent of Schools in Chicago, will take up new duties on the Harvard University faculty in September. He was recently appointed the Charles William Eliot Professor of Education.

Dean Francis Keppel of Harvard said regarding the appointment, "The School of Education is proud to be able to include in its faculty so distinguished a figure in American education."

Dr. Hunt has been in charge of the Chicago public school system since 1947. He will be associated with the Harvard Graduate School of Education's new program of "administration in action" which leads to the degree of Doctor of Education.

City, asserted that higher education is "confronted with a serious assault upon intellectual freedom. . . . It requires no prophet to see calamity ahead if we impose blinders upon ourselves at the very moment in our history when we need the widest and clearest vision," he said.

Senator Wayne Morse, Independent, Oregon, expressed the belief that academic freedom is in no danger, and said that he would not try to block the Senate investigation into

Conference Calendar

MAY

- 1-3, Seventh Annual Conference of Presidents of State School Administrators Associations, American Association of School Administrators, New York City.
- 4-5, Annual Convention, National Association of State Universities, Columbus, Ohio.

JUNE

- 15-18, Seventeenth Annual National Conference, National Association of Student Councils of the National Association of Secondary-School Principals, NEA, Portland, Oregon.
- 21-July 11, Seventh Annual National Training Laboratory in Group Development, Bethel, Maine.
- 24-27, Eighth Annual National Conference, National Commission on Teacher Education and Professional Standards, Miami Beach, Florida.
- 28-July 3, Ninety-first Annual Meeting, National Education Association, Miami Beach, Florida.
- 29, Annual Meeting, National School Public Relations Association, NEA, Miami Beach, Florida.

JULY

- 6-17, Tenth Annual National Conference, Department of Classroom Teachers, NEA, aboard S. S. Nuevo Dominico sailing from Miami, Florida.
- 26-30, National Institute for Audio-Visual Selling, Bloomington, Indiana.
- 31-August 4, First Assembly of the Teaching Profession, Oxford, England.

AUGUST

- 23-29, National Conference for Professors of Educational Administration, East Lansing, Michigan.

OCTOBER

- 8-9, Thirty-Sixth Annual Meeting, American Council on Education, Washington, D. C.

SPOTLIGHT

subversive activities on college campuses.

Morse warned, however, that we need to take steps to guarantee a fair hearing to individuals investigated. He announced that he would introduce a bill which would insure a fair procedure, since a Senate investigation constitutes a trial and a question of guilt or innocence is at issue.

Oliver C. Carmichael, president of the Carnegie Foundation for the Advancement of Teaching, outlined what he considers the major strengths and weaknesses in higher education today. The variety of offerings of colleges and universities and the proportion of our youth who enroll in them were the main strengths he listed.

Among the weaknesses, Carmichael pointed to the shift from philosophy to science. He felt that such an approach to education is inadequate for framing a sustaining philosophy of life. Citing a growing concern among educators at this level to improve their programs, he felt that this may be the prelude to a significant change in policy.

Karl Hereford Appointed Associate Editor

NEW YORK—THE SCHOOL EXECUTIVE announces the appointment of



Retiring president of the American Association of Colleges for Teacher Education, Robert E. McConnell, left, presents his gavel to the Association's new president, Marion R. Trabue, dean, school of education, Pennsylvania State College.

Karl T. Hereford as associate editor. During the past year he has served as an administrative intern on THE SCHOOL EXECUTIVE staff.

Mr. Hereford, born in West Virginia, was graduated from the University of Virginia in 1948 with an A.B. degree. He obtained his Master's degree from the University of Kentucky in 1951, and plans to secure his Doctor's degree from that institution at an early date.

At the University of Kentucky he

majoried in educational administration. He became the first member of the internship program established by the College of Education.

Mr. Hereford has been a classroom teacher at Heath High School, Paducah, Kentucky, and director of pupil personnel services in the Fayette County, Kentucky, public school system.

CPEA Finds Weak Points in Schoolmen's Education

NEW YORK—Changes in university programs for training school executives, many of them drastic, and the provision of greater skill and knowledge about their jobs to working school administrators in the region were reported as the major accomplishments of the Cooperative Program in Educational Administration for the Middle Atlantic Region during the past two and one-half years.

The second annual report stated that six projects have discovered what practicing school administrators think of their education and what they believe necessary for an effective training program for students today.

They feel their training inadequate in the legal aspects of school administration; pupil services, including transportation, lunch and health; adult education; in-service training



This mobile educational unit equipped with projectors, films, tape recorder and cameras brings first aid and fire prevention demonstrations to St. Paul schools.

of teachers; care of handicapped children; planning school building programs; relations with state departments of education; business management of schools and relations with the Federal Government; pupil guidance and counseling; community public relations and sources of revenue.

The report declared that "much still must be done to assist working school executives." According to a New York University study, superintendents need regional problem clinics; local board of education conferences; a file of university personnel with whom they can consult and lists of outstanding educational practices, school buildings and school personnel. They also requested a laboratory for testing school supplies and equipment.

Mothers Go To School, Too, in Philadelphia

PHILADELPHIA, PA.—While Johnny and Susie and their classmates are learning arithmetic, their mothers meet for informal discussion groups at three schools here.

These groups meet weekly for two hours, and their topics for consideration range from petticoats to politics. Occasionally films are shown, guest speakers are brought in or the group goes visiting.

Discussion groups, sponsored by the Division of School Extension of the board of education, were organized ten years ago for the purpose of giving women a chance to widen their horizons and to study mutual problems.

Course Offered for High School Deans of Girls

NEW YORK—Anyone familiar with teen-age girls can readily appreciate the problems faced by high school deans of girls in trying to counsel their large broods. A program tailored to meet the academic needs of such personnel in junior and senior high schools will be inaugurated this summer at New York University's School of Education, Dean Ernest O. Melby recently announced.

The overall program leading to a master's degree is to include studies in the evaluation of counseling services, sociometric techniques, procedures

for giving occupational and pre-college information and the recording and analysis of counseling interviews. Each student will have the opportunity to develop with her faculty advisor an individual course of study fitting her particular needs.

Fire Exit Rulings Revised in New Edition of Code

NEW YORK—Doors leading to enclosed stairways in schools should now be marked, "FIRE EXIT—Please Keep Door Closed." This new

requirement is included in the new edition of the Building Exits Code just approved by the American Standards Association.

According to the Association, this provision is an attempt to solve one of the particularly troublesome problems in fire protection—keeping stair doors shut so as to prevent the upward spread of fire and to safeguard the path of escape down the stairs.

Another new requirement of the

SPOTLIGHT

SE-37

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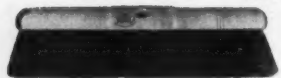
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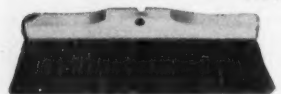
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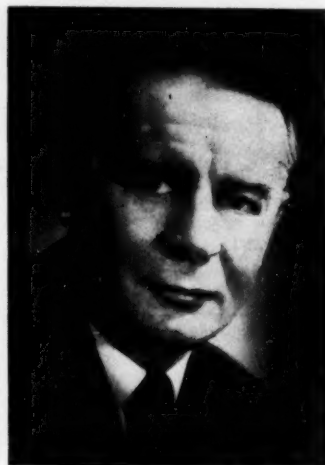
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SPOTLIGHT

revised code is that doors open by a readily available, convenient and obvious type of latch.

A former requirement for panic bars on all outside doors of schools has been modified in the latest code. One-story schools in which each individual classroom has a separate door to the outside of the building are now exempt.

Copies of the Building Exits Code, A9.1-1952, are available from the American Standards Association, 70 East 45 Street, New York, New York, for \$1.00.



Lee M. Thurston, new chairman of the Educational Policies Commission.

Thurston Elected to Top Commission Post

WASHINGTON, D. C.—Lee M. Thurston was elected chairman of the Educational Policies Commission at the Commission's 41st meeting. He has served as state superintendent of public instruction in Michigan since 1948. Dr. Thurston was recently appointed dean of education, Michigan State College, East Lansing, and will assume his new duties July 1.

Mrs. Sarah C. Caldwell of Akron, Ohio, president of the NEA, was elected vice-president of the Commission.

Among the subjects considered by Commission members at their last

SPOTLIGHT

meeting were school athletics, the role of the public school in American life, how schools can build better communities, and cooperation between parents and teachers in developing the moral and spiritual values of children and youth.

Fischer to be Baltimore Superintendent of Schools

BALTIMORE, Md.—Dr. John H. Fischer, formerly deputy superintendent in the public school system here, has been unanimously appointed by the Board of School Commissioners as superintendent of public instruction.

Dr. Fischer joined the Baltimore schools eight years ago as assistant superintendent charged with general administrative responsibilities.

Editorial Deplores Verbal Rocks Thrown at Schools

SALT LAKE CITY—"No Smoke Screens in Our Schools," by William B. Smart, took first place in the Education Writers Association 1952 editorial writing competition.

Mr. Smart, editor of the *Deseret News and Telegram*, prefaced the editorial with a quotation from Thomas Jefferson, "I have sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man."

The theme of the editorial was a tribute to public education in Utah, and a plea for intelligent public support. Mr. Smart pointed out, "In recent years, it has become a popular public pastime to throw verbal rocks at our school houses. There are movements afoot nationally—and they often smack of professional troublemaking—to censor textbooks and to discredit teachers. Any soap-box speaker can get a responsive, if unthinking, audience by making a shotgun condemnation of modern teaching methods. There are a great many people who would rather see our schools indoctrinate than merely educate."

"This newspaper firmly believes with Henry Steel Commager, the historian," concluded Smart, "that 'No

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other people ever demanded so much of education as have the American. None other was ever served so well by its schools and educators."

The prize-winning editorial was written on the occasion of the Fifty-First Annual Convention of the Utah Education Association here.

G. Kerry Smith Heads Educational Press Assoc.

WASHINGTON, D. C.—G. Kerry Smith was recently elected president of the Educational Press Association of America. He is a member of the staff of *School Life*, a publication of the U. S. Office of Education.

The post of secretary-treasurer will be filled by Mildred Sandison Fenner, *NEA Journal*, and Mrs. Clara Savage Littledale of *Parents' Magazine* is the newly elected vice-president of the Northeast Region.

New officers were elected by mail ballot. They will serve two-year terms.

Laboratory Techniques Used to Teach Citizenship

CHAPEL HILL, N. C.—Just as chemists or physicists use the laboratory, school teachers and principals are studying techniques by which students may be given real life exercises in the practice of citizenship.

The Citizenship Education Project of Teachers College, Columbia University, has conducted workshops throughout the country in which educators study and analyze ways in which students may use problems of the school or community to gain familiarity with civic "tools."

"We expect and hope that eventually the use of laboratory practices in developing citizens will become as commonplace as laboratory practice in the various sciences," said Regional CEP Representative William C. Overton of Columbia, South Carolina. Acceptance of CEP practices has been far more rapid than is usual with new educational techniques, he said.

CEP practices cover a wide range—from baby-sitting for voting mothers to an improvement of the stu-

dents' understanding of economic processes through setting up going business concerns.



Circulation vents for heating units

New School Heated by Ceiling Units

KINSTON, N. C.—Vertical unit heaters installed in false ceilings are now in use in the new Grainger High School here. Three-cone anemostats (funnels) diffuse heated air to all parts of the rooms. Passing through oblong ceiling grilles, room air is mixed with fresh air and recirculated by the heaters.

This arrangement allows greater flexibility in the layout of facilities and seating, and prevents accidental burns.

NSBA Asks Continued Aid to Defense Area Schools

CHICAGO—Congress should continue the program of federal assistance to schools in federally-affected areas until emergency conditions no longer impose a financial hardship on the local public schools. This resolution was carried unanimously by members of the National School Boards Association at their Atlantic City convention.

They further resolved to request the Federal Communications Commission to grant one year's extension to the time in which organizations may make application for educational television channels.

A three to one vote carried a reso-

lution stating that the NSBA "supports the United Nations' principles and objectives as the best basis for international cooperation, and recommends that at appropriate maturity and grade levels adequate instruction be given in the public schools about the UN and UNESCO as a part of the instruction in civics, United States history and related subjects."

NSBA Executive Secretary Edward M. Tuttle, reporting to convention delegates, stated that "school

SPOTLIGHT

board associations, state and national, belong to the local school boards of this country. Working with both the public and the profession and legally responsible for providing the best possible educational facilities for America's children, youth, and adults, school boards occupy a key position of utmost importance."

Mr. Tuttle expressed the opinion

SE-93

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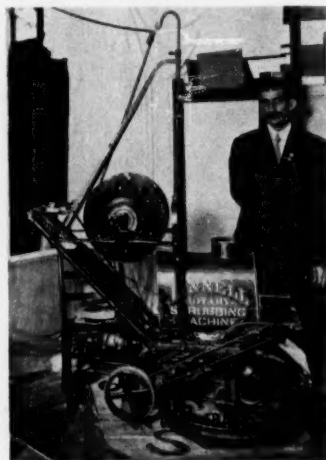
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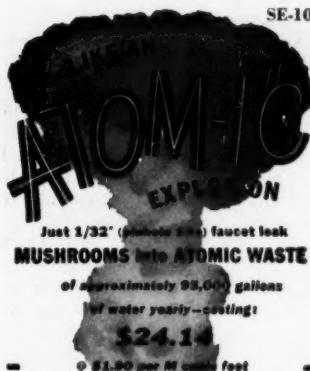
ELKHART, IND.—Along with the modernization of curriculums and school plants, school maintenance equipment has been improved and modernized, too.

Pictured above is a piece of floor cleaning equipment designed about 40 years ago by the Finnell System here. As a forerunner of today's maintenance equipment, it points up the evolution in this field of school affairs in recent years.

**University Proposes More
Cooperation With Schools**

CHAPEL HILL, N. C.—More effective relationships between the university and public schools was one of the recommendations of the self-examination conference recently held by the Consolidated University of North Carolina. The conference report recognized "an obligation on the part of

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Above figures substantiated by Hackensack
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SPOTLIGHT

the University to assist the State Department of Public Instruction in its attempt to upgrade teachers and improve instruction."

Members of the four self-appraisal committees also called for closer contacts between teachers in the public schools and University faculty "to their mutual benefit."

The panel on undergraduate instruction emphasized that University leadership could aid appreciably in bringing about a broader understanding of the goals of public schools. They also propose to give serious attention to the problem of high school preparation for college.

Labor Fights Bill to Restrict Adult Education

WASHINGTON, D. C.—A bill to confine adult education classes to school buildings is now before the California Senate. Organized labor in that state charges that the legislation, if it is passed, will strip adult education to a skeleton.

Programs in health, physical education, civil defense, first aid, arts and crafts and volunteer leadership will be eliminated, according to the San Francisco Labor Council (AFL).

These classes are held in such buildings as hospitals and child care centers.

Educational TV No Threat to Freedom, Says Layman

PHILADELPHIA, Pa.—Those who claim that educational television would provide a state thought control "are themselves using one of propaganda's oldest weapons, the catchphrase which damns without sound reason behind it," declared a General Electric executive speaking here recently.

Dr. W. R. G. Baker, a G-E vice-president, charged that those who fear political control of educational television have little faith in our ability to protect our freedoms.

"Actually," he pointed out, "any mother at home would be able to monitor what is being shown her children at school, and what safeguards are needed can be provided."

Baker expressed the opinion that educational television can provide the



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inspiration necessary to lead many of our young people to extend their schooling. "If our educational level can be raised, we begin immediately to make educational television pay for itself," Dr. Baker claimed.

On the question of competition with commercial television, Dr. Baker said, "If education can be made interesting enough to compete with entertainment, we can take new pride in American people and at the same time look forward to improvement in entertainment. I have a feeling," he concluded, "that some educational programs might even end up as sponsored programs on commercial stations."

Want To Go Abroad? Book Lists Opportunities

WASHINGTON, D. C.—Specific study opportunities for some 43,000 people appear in the 1952-53 revision of *Study Abroad*. The overseas-exchange program is booming. Only 15,000 listings appeared in 1948. The handbook also tabulates and explains 1,900 fellowships for overseas study.

During the present academic year 1,631 Americans are in other countries for purposes of study, teaching, research, lecturing, or as consultants under the U. S. Government's educational-exchange program.

Study Abroad may be obtained from the International Documents Service, Columbia University Press, New York, New York, for \$2.00.

NYU Announces Workshop in Educational Leadership

NEW YORK—New York University's 1953 summer workshop in educational leadership is scheduled for June 29 to August 7.

The curriculum is planned to help those who hold or are preparing for administrative and supervisory posts. Each participant will plan his own program in terms of his special interest and needs and the resources of the workshop and the metropolitan area.

Eight points of graduate credit will be given for the six-weeks program. Special arrangements have been



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SPOTLIGHT

made for attendance for shorter periods of two to five weeks, with graduate credit given.

For further information write to Dr. Herbert B. Bruner, School of Education, New York University, Washington Square, New York 3, New York.

No Press Needed for New Printing Process

WASHINGTON, D. C.—An inexpensive printing process, simple enough for any teacher to use, has been developed. It is designed primarily for the production of posters.

Key to the method is engraving on wax from which a printing plate is cast. The finished product, made of carpenter's glue and glycerine, has a rubbery texture from which posters can be printed without a press.

This process was developed at UNESCO's regional fundamental-education training center at Patzcuaro as a cheap way of producing highly specialized materials.

Financial Security Theme of Graduate Courses

NEW YORK—Better teaching of money management and financial security in American schools and colleges will be the general topic of study in the 1953 summer schools of eight universities across the country.

Some 330 high school teachers and other educators will spend four to eight weeks in these graduate training courses sponsored by the Committee on Family Financial Security Education, whose program is financed in part by a grant from the Institute of Life Insurance. Scholarships covering living expenses or tuition fees are offered, and all eight courses will carry academic credit toward a graduate degree.

The participating universities—Connecticut, Denver, Miami, Oregon, Pennsylvania, Southern Methodist, Virginia and Wisconsin—will give intensive training in a wide range of financial topics. Included are such subjects as sources of income, budgeting, banking services, life insurance, personal taxes, bor-

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Modern styling and flexibility keynote this new Vers-A-Tilt chalkboard by Claridge. Incorporating a tilted surface to eliminate glare from natural and artificial light, the board itself is reversible, enabling the unit to be used as a chalkboard or tackboard. The Vers-A-Tilt promotes better penmanship since students assume a more natural writing position.

A completely prefabricated unit, the new Vers-A-Tilt is installed in minutes; installation costs cut 75% and more.

Without any major alterations, as required by conventional chalkboards, the entire unit can be changed from a 1st grade height to that of an 8th grade in a matter of minutes.

Write today for complete details on the Vers-A-Tilt Chalkboard and the full line of Claridge Chalkboards and Bulletin Boards.

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rowing and buying on credit, home ownership and investments.

Information about the workshops may be obtained from R. Wilfred Kelsey, Committee on Family Financial Security Education, 488 Madison Avenue, New York 22.

Course Given for Building Service Personnel

NEW YORK—Teachers College, Columbia University, is sponsoring its fifteenth annual short course for building service employees June 1 to 5. The purpose of the course is to stimulate the interest of such personnel in their jobs and to present information that will help them become more efficient and economical in directing the care, operation and maintenance of the school plant.

Emphasis will be given to managerial aspects. Such topics as purchasing supplies and equipment, custodial tools, refinishing furniture and woodwork, and the care of lawns will be discussed. There will also be lectures and panels on the responsibilities of building service supervisors and employees and desirable characteristics of supervisors.

Students of college rank may earn one point credit for participation. All correspondence should be addressed to Professor H. H. Linn, Teachers College, Columbia University, 525 West 120th Street, New York 27, New York.

State Association May Bargain for Teachers

SEATTLE, WASH.—The Washington Education Association will become a bargaining agent for its individual members in matters of "salary, contracts and related fields," if a majority of its members vote affirmatively on a proposed contract trusteeship plan.

WEA President T. Olai Hageness said that because teacher contracts are negotiated with local school boards, under present laws those boards are the only ones with whom the Association or its units can bargain. There is not now any satisfactory method of bargaining with the

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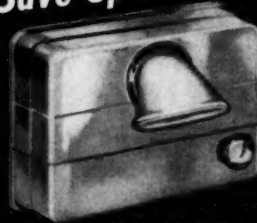
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Towel cost saved by restaurant!

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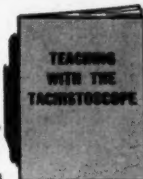
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The Tachistoscope is a still projector equipped with a shutter-like device for flash-recognition exposures. The Speed-i-o-scope is the SVE-brand tachistoscope shutter. It may be attached to a standard filmstrip or slide projector, such as the Instructor 500 shown here. Tachistoscope training for students has real value: eye-hand-brain coordination is improved. Awareness of detail is increased. Interest in learning is stimulated. Association of words and objects is developed. The SVE filmstrips available for tachistoscopic training are known as Speed-i-o-strips. These filmstrips actually perform a dual function, since they may be used with or without the tachistoscope, as reading skills material. The Speed-i-o-strip sets on subtraction, addition, multiplication and division are excellent for teaching, review and testing of arithmetical fundamentals. Call your SVE dealer for further facts about these versatile audio-visual teaching tools.

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SPOTLIGHT

legislature as far as specific contract provisions are concerned, Hageness declared.

The proposal was presented to the board of directors of the Washington Education Association by some fifteen local units, who asked for a statewide poll. The board of directors did not recommend that the membership either accept the proposal or reject it.

NCPEA Sets Program for Kellogg Center Conference

SYRACUSE, N. Y.—There will be no conference widows because of the August 23 to 29 meeting of the National Conference of Professors of Educational Administration. Wives and families have been extended a cordial invitation to come to the Kellogg Center on the Michigan State

College campus during the week of meetings.

Recreation and informal activities have been planned and the conference schedule is set up so that the participants may join their families during the afternoon.

There will be serious business, too, with general sessions each morning and many discussion groups.

Chairmen and topics of the discussion groups are: Cyril Sargent of Harvard, implications for school administration of recent developments in the theory and practice of communications; Walter Beggs, Nebraska, recent trends in community study and analysis; Walter Cocking, editor of *THE SCHOOL EXECUTIVE*, school administration and community development; Clyde Campbell of Michigan State College, new approaches to the structure and organization of public education; Van Miller, Illinois, administrative personality and behavior—emerging concepts and hypotheses; Jack Childress of Northwestern, instructional methods for

graduate programs in school administration; Daniel R. Davies of Teachers College, Columbia University, decision making in school administration; and Roald Campbell, Ohio State, opportunities for further training through field experience and field services.

In addition, special committees will discuss such subjects as school law, the job of the superintendent, internship in school administration, and the interdisciplinary approach to the education of school administrators.

Teacher Quits Profession and Tells Why

WASHINGTON, D. C.—The NEA Research Division recently published a report on the growing shortage of teachers. It stated that some 60,000 quit each year after a short stay in the teaching profession.

Here is a short item about one teacher who quit and published her reasons why. The April issue of *The Rotarian* carried Miss Helen Cramer's story. She said that she was leaving the classroom because of "progressive education." She likened it to the chaos occurring at a street corner with cars turning left and right, speeding and colliding while the traffic cop stands by and lets each driver "express himself."

She also disapproved of "student government," which she characterized as an army in which the privates have the authority, and a "keep-the-kids-happy philosophy."

SE-123

"TEST" FOR SCHOOL BOARDS:

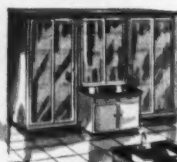
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Metalab school equipment experts will give you the MONEY-SAVING ANSWERS!



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Color Film Outlines Study for Teaching Career

NEW YORK—*Adventure Into Teaching*, a color film designed to inform and interest young people in elementary school teaching as a career, has just been released by the Harmon Foundation.

It begins with three high school seniors on a college visit to "see what makes a teacher." The film follows them through their college courses, student-teaching, actual teaching and activities with professional organizations.

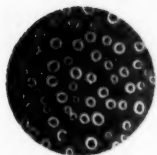
The 25-minute film was produced in cooperation with the Board of

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Fog 1,000 cu. ft. in 3 seconds for 5¢



Top — Magnified photo of uniform 8 micron droplets produced by precision-machined suction nozzles of West Atomizing equipment. "Dry mist" remains air-borne for prolonged periods.



Bottom — Magnified photo of droplets produced by ordinary hydraulic compressor sprayers. Vary from 2 to 300 microns. Larger droplets fall, wetting floors and reducing effectiveness.

— and with only 1 ounce of Vaposector — for complete control of flying insects. Double this dosage for crawling insects.

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West has a complete line of insecticides and atomizing equipment ranging from permanent installations to portables. A West specialist will be glad to make a survey and set up an Insect Control Program to fit your needs. Without obligation. Just mail the coupon.



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Bucknam planned the economical, continuing floor maintenance program. There's a Tremco Man like him near you.



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Tremco Man Bucknam's recommendations included provisions for resisting abrasion and imbedding of grime, by hardening and sealing the porous floor surfaces with Tremco Penetrem. Result: Easy to clean floors that have stayed in perfect condition for over 14 years—at low cost. From classroom to cafeteria, the Tremco Man can help you save floor maintenance costs. His thorough inspection and careful recommendations are yours at no obligation. The Tremco Manufacturing Company, Cleveland, Ohio; or The Tremco Manufacturing Company (Canada) Ltd., Toronto, Ontario.

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US-15

SPOTLIGHT

Higher Education of New York City. Distribution is through the Division of Visual Experiment, Harmon Foundation, Inc., 140 Nassau Street, New York 38.

NEA Studies Status of Rural Teachers

WASHINGTON, D. C.—The teachers who preside in the classroom of the open country and villages (where four out of ten American children go to school) are neither "old timers" nor "green hands fresh from the training institutions," according to the Research Division of the National Education Association. That organization has just completed a nationwide probe into the personal life and professional status of the rural teacher. The study includes the isolated one-room school as well as larger "consolidated" institutions.

The typical teacher in a rural elementary school is 42. The rural high school teacher is eight years younger.

The salary of the country school teacher has tripled in the past fifteen years. However, one of the great problems rural school boards face is caused by the fact that teachers in nearby cities are paid more money. In some cities the average salary is \$2,000 a year more.

Along with somewhat better economic status have come better prepared teachers. The percentage of teachers in such schools who hold degrees has more than doubled since the last study of this kind was made fifteen years ago.

The typical teacher has taught school for thirteen years, is married, lives four-and-one-half miles from school, and travels about 2,000 miles a year to school by auto.

Rural teachers are not rigidly controlled by their boards of education on such matters as weekend trips, smoking and dancing. Many did feel that they were restricted from discussing certain topics, but such restrictions came from public opinion and pressure groups.

Educational Broadcasters Enlarge Services

AUSTIN, TEXAS—A committee on associate members was recently created by the National Association of Edu-

CALIFONE

Varipole

FOR
RHYTHM
CONTROL

Varipole is Califone's wide range exclusive speed control... Slows the beat for beginners or speeds up slow records at the turn of a dial.

Among Califone's 16 models of phonographs, transcription players and sound systems designed to meet every school requirement, are many incorporating this all-important Rhythm Control feature.

MODEL
12VP2



This new High Fidelity model weighs only 20 pounds, yet offers additional features found on no other portable equipment.

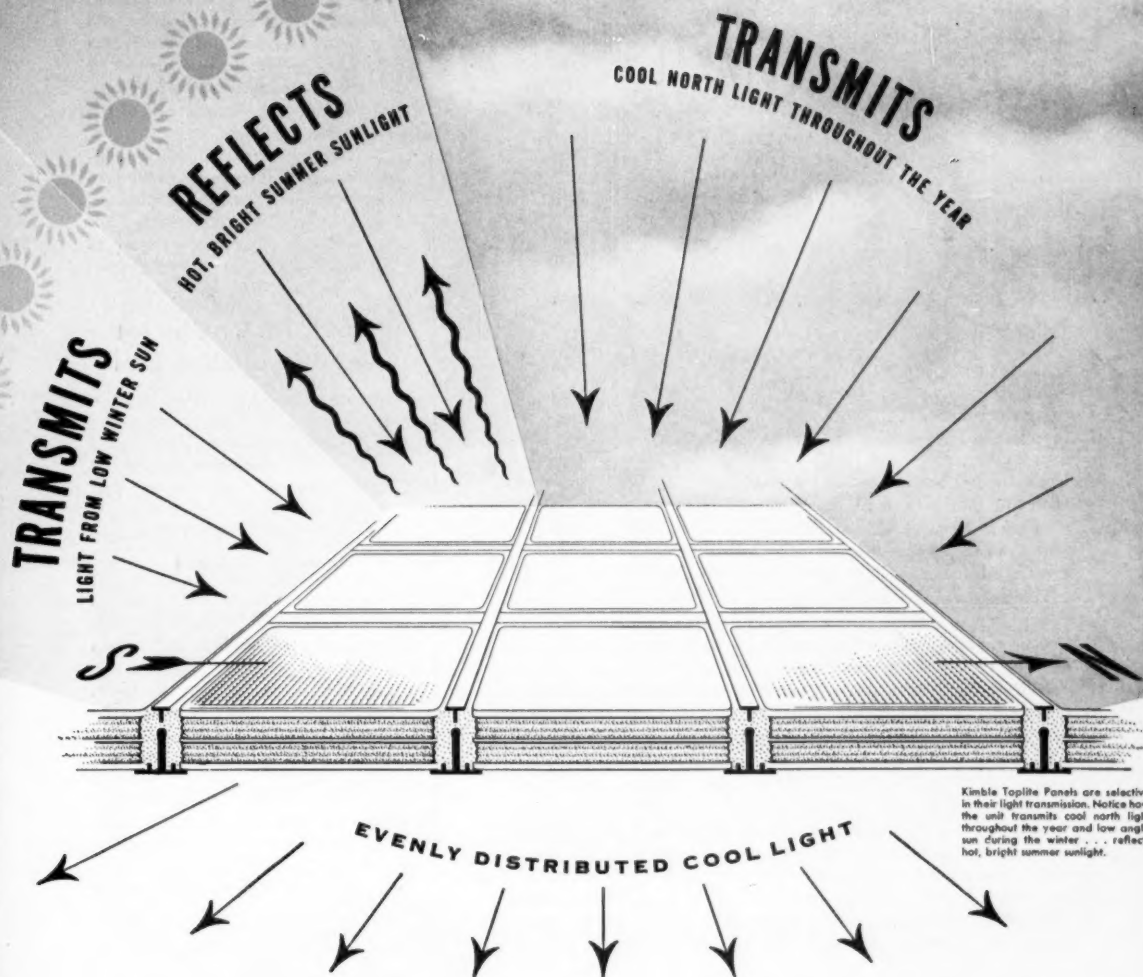
School Price
\$122.50

- ★ 3-speed heavy duty Varipole turntable
- ★ Wrist-action pickup arm for 7-16" recordings
- ★ G.E. variable reluctance cartridge with adjustable needle pressure
- ★ Extended range 12" loudspeaker for true High Fidelity

WRITE FOR
CATALOGUE SE-453

CALIFONE CORPORATION

1011 North Syracuse Avenue
Hollywood 38, California



Kimble Toplite Panels are selective in their light transmission. Notice how the unit transmits cool north light throughout the year and low angle sun during the winter . . . reflects hot, bright summer sunlight.

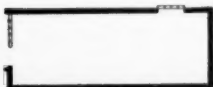
ANNOUNCING TOPLITE—a new idea in daylighting

Kimble Toplite Panels limit and control the heat and amount of light entering a building from overhead. Here is the new way to daylight deep interior areas too far removed to be effectively reached by conventional, side-wall, prismatic glass block panels.

Kimble Toplite Panels distribute diffused daylight evenly over wide areas that are far from outside walls. They reflect hot summer sun . . . have unusual ability to reduce solar heat transmission. There are no hot spots, eye-fatiguing glare, nor concentrations of light. Kimble Toplite

Panel Units have an insulating value equivalent to double glazing or side-wall glass block.

Want more information about this great, new advance in daylighting? Write Insulux Glass Block Div., Kimble Glass Company, Dept. PA5, Box SE5, Toledo 1, Ohio.



Kimble Toplite supplements Insulux Penetration in deep rooms.



KIMBLE GLASS COMPANY

Toledo 1, Ohio—Subsidiary of Owens-Illinois Glass Company

At Last!

For Emergency Classroom Use Conferences...Lectures Staff Meetings

A TABLET ARM CHAIR

THAT FOLDS!

The Greatest Advance
in the History of Folding Chairs



Undoubtedly, you've wished for a chair like this many times. Now it's here—perfected—ready to go to work for you. Here is permanent convenience and comfort adapted for emergency use—the greatest advance in the history of folding chairs.



The tablet arm is a built-in feature of the chair, not an attachment. It is strong, easy to operate, a marvel of engineering ingenuity (patent pending). For ordinary chair use when the arm is not needed, it folds down, out of the way, beside the chair, and flat against the chair for quick, safe stacking. The flat, folded depth of the chair is only 3 inches. The chair can be folded or unfolded in a matter of seconds. It is exceptionally easy to get into and out of.

Built throughout with all the famous Clarin insistence on utmost quality, the Clarin Tablet Arm Folding Chair will give years of faithful service. It is a supremely strong X-type chair, self-leveling, welded to insure exceptional strength and quietness. Its cushioned rubber feet, a Clarin exclusive, can't mar the finest floor. It comes with Clarin's famous reinforced seat of 5-ply plywood, or it can be had with fine quality leatherette on seat and back, or on seat alone. Available in wide range of frame and upholstery colors.

Clarin Mfg. Co., Dept. 20, 4640 W. Harrison St., Chicago, Ill.

Clarin

Write today on your institution's letterhead for beautiful, new FREE Catalog of the complete Clarin line.

<p>The Only Complete Line of Steel Folding Chairs</p> <p>No matter what your need, there is a Clarin Steel Folding Chair to meet it. Every chair represents the utmost in quality. It is stronger, safer, more comfortable—scientifically engineered in every detail to justify the only written 10-year guarantee in the industry.</p> 	<p>Clarin Steel Folding Chairs for Children</p> <p>Clarin's extensive line provides even for juveniles. Children love these colorful, sturdy, comfortable chairs made just for them. Hard to tip over, easy to set up, simple to fold... true Clarin quality on a smaller scale. Two sizes—up to 7 and up to 9 years.</p> 
--	--

SINCE 1926...THE ARISTOCRAT OF FOLDING CHAIRS

cational Broadcasters. Associate members are schools that do educational broadcasting but do not operate their own radio stations.

Gale R. Adkins, University of Texas radio-television director and director of its Bureau of Research in Education by Radio, is chairman of the new committee. He will represent and promote the interests of the 70 associate members.

NAEB's Educational Tape Network supplies educational radio programs to stations across the country. A similar service is planned to supply television programs on film to educational television stations.

\$25,000 NEA Shipment Goes to Korean Teachers

WASHINGTON, D. C.—The first shipment of 1250 clothing packages for Korean teachers has left the United States. This shipment, valued at \$25,000, was made possible by contributions of United States teachers to the Overseas Teacher Fund of NEA.

Each clothing package, containing seven yards of wool cloth and all necessary findings, costs \$20. This is equal to a 20 percent increase in a Korean teacher's annual salary.

A letter from William G. Carr, NEA executive secretary, accompanies each package. It reads in part: "We are intensely proud of your excellent record in keeping Korean schools in session during the invasion and war in spite of the personal hardships and the disastrous destruction to buildings and equipment. We hope that you will think of this package as a token of our goodwill and support."

Receipts signed by Korean teachers will be returned to the NEA and forwarded to contributors, making possible further contacts between teachers in the United States and Korea.

Willard E. Givens Accepts Assignment in Philippines

WASHINGTON, D. C.—Willard E. Givens, retired executive secretary of the NEA, has accepted a three-months assignment from the Mutual Security Agency to assist Philippine

What's all this talk about...

VU-LYTE

OPAQUE PROJECTION?



It's the topic of the day, in educational circles at every teaching level. The VU-LYTE offers remarkable aid in making teaching more effective. It is the opaque projector with the greatest facilities and mechanical superiorities.

What IS an opaque projector? The Beseler VU-LYTE is an ultra-modern, professional-type teaching tool, embodying an entirely new principle in opaque projection. Its exclusive features afford versatility of application and flexibility of operation. All sorts of free and easily available materials can be projected to a screen in natural colors. These include maps, diagrams, homework papers, pictures, books, magazines, and solid objects. Slides and preliminary preparation of materials are not required.

What can it DO for me? VU-LYTE will help to heighten class interest. Pupils will grasp subjects more readily. Lessons so learned are longer retained. It will make it possible for you to use more illustra-

tive materials to enrich class discussions and increased pupil participation will become a natural result.

What ARE its advantages? VU-LYTE is simple to operate; provides the brightest, sharpest pictures in brilliant colors, and can be used in a partially lighted room. No similar projector has so many exclusive advantages. These include the VACUMATIC[†] PLATEN, to hold unmounted copy flat; FEED-O-MATIC[†] CONVEYOR, to easily feed in new copy and eject the used, automatically; POINTEX^{*} PROJECTION POINTER, to throw on the screen a movable arrow of light operated by the teacher from beside the machine.

These and other educational and technical advantages are described in a free folder prepared for teachers and administrative personnel. A copy of "OPENING THE DOOR TO THE MIND" and a free demonstration of the VU-LYTE without cost or obligation is yours for the asking.



*Patented
†Patent Pending

THE NEW
VU-LYTE
OPAQUE PROJECTOR

CHARLES *Beseler* COMPANY
EST. 1899

60 Badger Avenue, Newark 8, N. J.
The World's Largest Manufacturer of Opaque Projection Equipment

Charles Beseler Co.
60 Badger Ave., Newark 8, N. J.

Gentlemen:

☐ Please send me your free folder, "OPENING THE DOOR TO THE MIND." ☐ Have your representative contact me to arrange a free demonstration of the VU-LYTE at our school.

Name _____

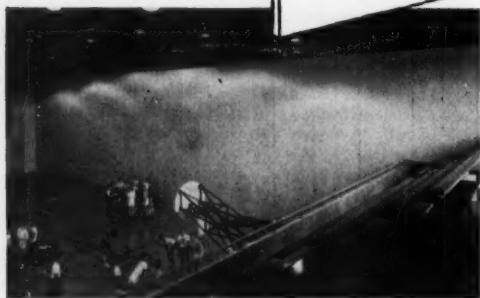
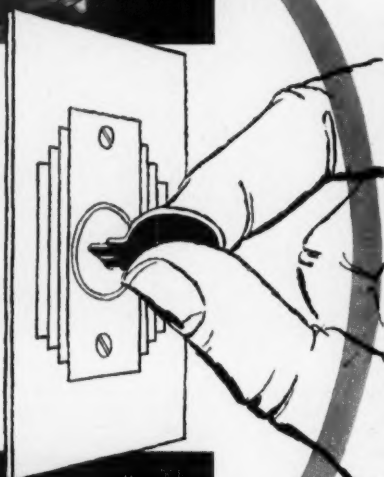
School _____

Address _____ (Home or School?)

City _____ Zone _____ State _____



Space problems
solved...with
a *flick*
of the switch



Richards-Wilcox FoldeR-Way Partitions

The Richards-Wilcox fully automatic FoldeR-Way Partition is the most efficient and practical way to utilize fully all existing space in gymnasiums, auditoriums, classrooms, meeting halls and other large enclosed areas.

All folding, unfolding, locking, unlocking and soundproofing are accomplished by the electric operator and auxiliary mechanism. The silent, smooth roller chain drive will not stretch, slip or break.

The hanger wheels are ball bearing, machined for line contact with the steel bar runways.

Three inch thick doors with fully automatic floor seals provide a flush, self-adjusting floor surface without butt hinges below the seven foot level.

For efficiency and performance, specify R-W FoldeR-Way Automatic Folding Partition. Full information will be sent upon request. Write to:



Richards-Wilcox Mfg. Co.

A HANGER FOR ANY DOOR THAT SLIDES

156 THIRD STREET, AURORA, ILLINOIS

educators in developing their professional associations for teachers.

MSA officials asked Dr. Givens to serve as an education consultant for their agency in the Philippines after officers of the Philippine Public School Teachers Association requested his assistance.



These match books helped a California community pass their four million dollar school bond issue.

Match Books Help Put Over School Bond Issue

RAVENSWOOD, CALIF.—Match books bearing a cartoon of a schoolhouse bursting with children and a plea to "Stop ½ Time Education—Vote 'Yes' Ravenswood School Bonds" were distributed here to urge citizens to support a \$4 million school bond issue.

The public school situation here was similar to that in many American communities. Population had risen from 5,000 to 18,000. Two bond issues added several classrooms to existing buildings, but children up to the sixth grade were still on half-day sessions.

The job of selling the \$4 million bond issue to the public was undertaken by citizens groups, the PTA and other civic organizations. A week before the election, local businesses distributed 5,000 special match books to purchasers of cigarettes to remind them of the election. Result: three

*Despite the labyrinth of claims,
they're still choosing Waynes!*

America's Safest way to go to school !



Wayne

WAYNE WORKS, INC. • RICHMOND, IND. U. S. A.
*The World's Largest and Oldest Manufacturer
of Bus Bodies... Exclusively!*

**practically
indestructible
and quiet
Kys-ite
molded
plastic
tableware**



**and trays
for student
cafeterias**

Up to 5 times stronger than ordinary plastics, Kys-ite tough to chip or crack . . . stacking, carrying and washing can be done at top speed without any danger. Lightweight, quiet, eliminating all noisy clatter. Washes easily—manually or in machine, safe in boiling water. Stain-resistant tableware in maple color; red or brown trays.



50TH ANNIVERSARY 1903-1953

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Please send me further information on
☐ Kys-ite Tableware ☐ Kys-ite Trays
NAME.....TITLE.....
NAME OF SCHOOL.....
ADDRESS.....
CITY.....ZONE.....STATE.....
MY WHOLESALE IS.....

SPOTLIGHT

new school buildings are now under construction.

Student Council Leaders to Convene in Oregon

WASHINGTON, D. C. — Representatives of student councils in 40 states, Canada, Mexico and the Hawaiian Islands are expected to attend the seventeenth annual National Conference of Student Councils. The conference is scheduled for June 15 to 18 in Portland, Oregon, to consider the theme, "Youth Builds Tomorrow's World."

Attendance is limited to 600 student and faculty delegates. In states where there is a state convention of student councils, delegates will be chosen by those associations. In other states delegates will be chosen by the National office.

The result of the discussion groups will be published in the 1953 Student Council Handbook and distributed to all schools that are members of NASC. NASC is a major project of the National Association of Secondary-School Principals, NEA.

High Schools Urged to Step Up Driver Education

OLD POINT COMFORT, VA.—Driver training programs have outgrown their "sideshow" days and deserve a place under education's "big tent." So said Price E. Clark, educational director of the Association of Casualty and Surety Companies, in an address before a statewide meeting of health education and safety teachers here.

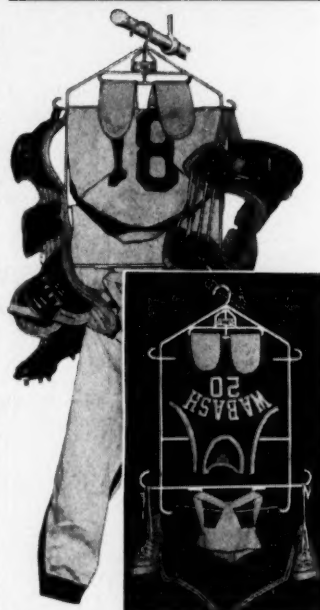
Price characterized the constantly growing accident toll as our greatest peacetime problem, second only to national defense. He declared that successful control depends to a large degree on high school and adult courses in driver education.

Such courses are now offered by 8,000 high schools, teaching 700,000 students annually. Adult driver education programs are also becoming more popular, Price asserted.

"Driver education is no longer a step-child of American education,"

(Continued on page 115)

ALL-AMERICAN HEAVY-DUTY UNIFORM HANGER



Faster, More Thorough Drying . . . Much More Hygienic and Efficient Handling For All Athletic Gear

Accommodates *all* of a player's football, basketball or baseball gear, solves the old problem of drying and storing sweat-soaked equipment. Ruggedly made—extra heavy steel rod, electrically welded into a strong, one-piece unit. Molten tinned finish protects permanently against rust and the corrosive action of perspiration.

Each, complete with
Number Plate, f.o.b.
our Texas Mill

\$160

★ Write for literature on American Approved
DRESSING ROOM EQUIPMENT



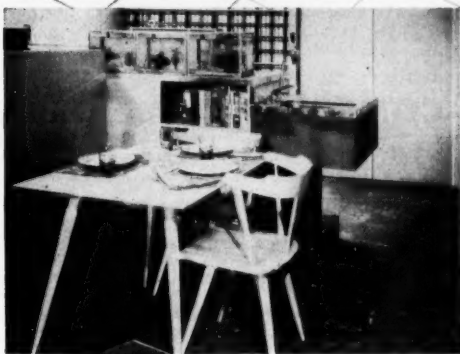
Compare

Johns-Manville TERRAFLEX PLASTIC TILE

(made of vinyl plastic and asbestos)

...for longer wear

Johns-Manville, the pioneer in vinyl plastic flooring, made the first installation of this type floor in 1933 and 1934 at the Chicago World's Fair. Twenty million people walked over this unique new plastic floor tile during these years, and accurate micrometer measurements before and after showed no appreciable wear. The same tile, reinstalled in another location is still in use today! It still looks like new!



...for less care

Because of its nonporous surface, Terraflex® Plastic Tile can be cleaned without scrubbing, will stay bright without waxing (although, waxing will give it additional luster). Terraflex Plastic Tile is unaffected by grease, oil, alkaline moisture, and mild acid solutions. Its resistance to moisture makes it ideal for below-grade and on-grade installations.

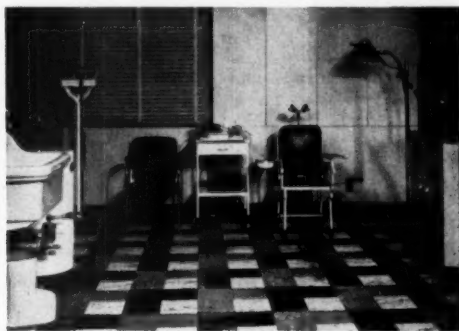
*Reg. U. S. Pat. Off.

For THE BEST there is in flooring—look to Johns-Manville Terraflex. Send for a free brochure showing the full color line of Johns-Manville Terraflex Plastic Tile and Asphalt Tile. Write Johns-Manville, Box 60, New York 16, N. Y.



...for cleaner colors

Choose from a large range of Terraflex colors that have clearer, brighter tones than ever before obtainable in resilient floor covering. These colors will not fade, can not wash out and will never lose their sheen from constant wear. Johns-Manville Terraflex will keep its first-day-newness a lifetime.

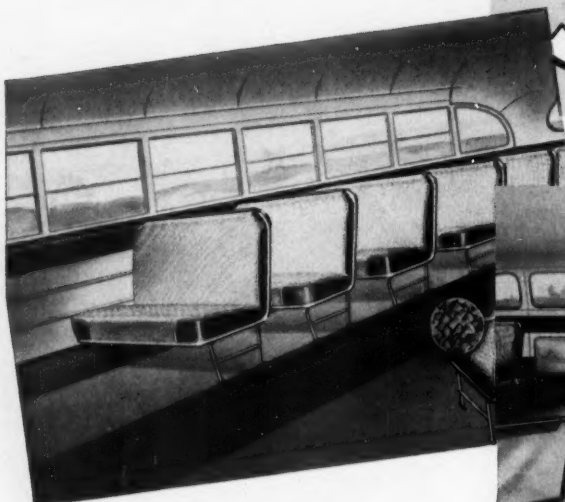


Johns-Manville

TERRAFLEX AND ASPHALT TILE FLOORING

MORE SAFETY

5WAYS



with **Oneida** "COLOR-COMFORT" INTERIORS

New "Color-Comfort" interiors in sparkling shades of green with cream piping stay new-looking for years—but that's not all! Check these safety advantages:

- **THE ONEIDA SAFETY CRASH PAD.** This Crash Pad is contoured to blend perfectly with interior trim—yet assures plenty of extra protection if the necessity for a sudden stop should arise. (Optional equipment at extra cost)
- **"HIGH-AND-LOW" VISION REAR DOOR.** Wide, foolproof emergency door offers unexcelled visibility when parking, backing up, or in tight spaces. (Optional at extra cost)
- **ONEIDA "COMFORT-DRIVE" SEAT.** Driver comfort and visibility are vital safety factors. That's why the "Comfort-Drive" seat adjusts 4 ways . . . up, down, backward,

forward for maximum visibility. (Optional at extra cost)

- **ONEIDA "SAFE-VUE" ENTRANCE DOOR.** This door assures extra safety for children. The driver has an unobstructed view of the roadside and waiting passengers. Wide two-step entrance permits easy entrance and exit. Vertical edges of doors have soft, rubber seals to protect fingers.
- **BIG WINDSHIELD AREA FOR GREATER SAFETY.** Windshield styling reduces reflection and glare; increases visibility. Narrow pillar assures maximum vision in any weather. Tinted glass (optional at extra cost) cuts driver fatigue.

To convince yourself, send for new, colorful brochure on "Color-Comfort" Safety Interiors. Mail coupon today!

"SETTING QUALITY STANDARDS FOR THE INDUSTRY"



ONEIDA PRODUCTS CORPORATION

SALES DIVISION
CANASTOTA, NEW YORK

SEND FOR THE FACTS TODAY!

Oneida Products Corporation
Sales Division
Canastota, New York

SE-5-53

Please send me full details on new Oneida "Color-Comfort" interiors.

Name

Address

City Zone State

SPOTLIGHT

(Continued from page 112)

he declared. "It has proved itself worthy of adoption by every high school in the nation as a full-fledged member of the scholastic family."

Union Prepares Materials for Classroom Use

NEW YORK—Unions are publishing an increasing number of educational materials to acquaint the public with their work and goals.

The United Electrical, Radio and Machine Workers of America has prepared a Teachers Kit of their recent booklets on such subjects as discrimination against women workers, civil liberties and labor bills.

These materials are available to teachers without charge in quantities up to 30 from 11 East 51 Street, New York 22.

Book-of-the-Month Club for Elementary Pupils

BROOKLYN, N. Y.—To encourage kindergartners and elementary school students to own and read good books, the *Young Folks Book Club* has set up a reading program similar to the Book-of-the-Month Club.

Each month four books are sent to the school librarian. Students may examine the books and decide if they want to buy them. Selections are pre-tested for different age levels.

Information about this Club may be obtained from 1078 St. John's Place, Brooklyn 13, New York.



May, 1953

SE-144

IT'S PERSONAL!

Fight ATHLETE'S FOOT the New Sanitary Way



KILL ATHLETE'S FOOT Fungus with Individual Foot Treatment

1. Step on
 2. Mark time
 3. Step off
- That's all!*

no dilution • no contamination • no re-used solution

The SANI-MISTER Spray Dispenser is the most sanitary device yet developed for protection against the spread of Athlete's Foot fungus in your school's shower rooms.

Every foot treatment is individual—clean, full-strength, uncontaminated. No shower drippings can dilute it. No previously used solution to cause possible infection.

According to laboratory tests, SANI-MIST solution kills Trichophyton Mentagrophytes, the principal fungi causing Athlete's Foot, in less than 30 seconds. The SANI-MIST method is economical too. Costs only a few cents a day. For complete details mail coupon today.

SANI-MIST INCORPORATED

1724 Chestnut Street, Phila. 3, Pa.

SANI-MIST, Inc., 1724 Chestnut St., Phila. 3, Pa. E

Please send me complete details of the safe, clean SANI-MIST method of Athlete's Foot prevention.

NAME _____ TITLE _____
 COMPANY _____
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The Washington Scene



The primary concern of educators close to Capital affairs is for the maintenance of an effective U. S. Office of Education. President Eisenhower recently submitted to Congress a special message outlining a reorganization plan for a new Department of Health, Education and Welfare, to become one of the executive departments of the government with its head a member of the President's cabinet.

Mrs. Oveta Culp Hobby, former Federal Security Agency head, was recently installed in this newly-created post of the Secretary of Health, Education and Welfare. She will be assisted by an Under Secretary and two Assistant Secretaries.

"There should be an unrelenting effort to improve those health, education and social-security programs which have proved their value," said President Eisenhower in submitting his message, "but good intent and high purpose are not enough. All such programs depend for their success upon efficient, responsible administration."

The President's recommendations include titles indicative of the responsibilities of the respective officials, and propose salaries paid in comparable positions of other executive departments. The plan establishes a uniform method of appointment for the three major constituent agencies. At present, the Surgeon General and the Commissioner of Education are appointed by the President and confirmed by the Senate, while the Commissioner for Social Security is appointed by the Federal Security Administrator. Hereafter, all three will be presidential appointments, subject to Senatorial confirmation.

An innovation affecting education appears in the recommendations for the reorganization of this branch of

the government. "There should be in the department an Advisory Committee on Education made up of persons chosen by the Secretary from outside the Federal Government which would advise the Secretary with respect to the educational programs of the department," says the President's statement.

It is claimed that the creation of such an advisory body to the Secretary will help insure the maintenance of responsibility for the public educational systems in state and local governments, while preserving the national interest in education through appropriate federal action.

Both the Under Secretary and the two Assistant Secretaries will have jurisdiction over all the divisions of the office—health, education and welfare.

The American Medical Association secured special recognition for medical interest in the new department. There will be an Assistant to the Secretary on Health and Medical Affairs who is appointed by the President by and with the advice and consent of the Senate "from among persons who are recognized leaders in the medical field with wide non-government experience."

The duty of this Special Assistant will be to review the health and medical programs of the department and to advise the Secretary with respect to the improvement of these programs and with respect to necessary legislation in the health and medical fields. This Special Assistant will perform a function, therefore, comparable to that of the Advisory Committee on Education, although the latter will be made up of non-professional members.

It is expected that the Congress will speed the reorganization by early approval of the recommendations of

the President, although such approval is not necessary. The reorganization automatically takes place unless Congress goes on record disapproving it.

School officials of war-impacted areas breathed a sigh of relief as the deficiency appropriation bill, approved by both houses of Congress, found its way to President Eisenhower's desk. His signature is certain and, as a consequence, \$20,500,000 will go to schools needing aid because of proximity to war-related industries or military concentrations.

Hamburgers will go up at home and down at the school cafeterias, since the Department of Agriculture began government purchasing of beef to bolster the declining prices of chuck roast and sirloin steak. The meat purchased, of course, will be made available to schools through the free lunch program and to other public institutions entitled to benefits as a result of price support measures.

Congressional hearings investigating education go on apace. The Jenner Committee and the Velde Committee have conducted a total of five open hearings and several behind closed doors to date. For the most part witnesses do not confess to Communist affiliation, refusing to answer, claiming the privilege of the Fifth Amendment. Some of the witnesses have testified against each other without too much in the way of confession on their own part.

A resolution introduced by Franklin D. Roosevelt, Jr. (D-New York) calls for the removal of Harold H. Velde as Chairman of the House Committee on Un-American Activities. This action was prompted by widespread criticism of Velde for his announced intention of extending the scope of investigations carried on by his Committee even to the inclusion of the clergy and the churches.

The annual study of the Commission on Teacher Education and Professional Standards of the NEA shows that approximately 160,000 additional teachers will be needed next fall in the elementary schools and that replacements expected from the colleges preparing teachers will total 35,636. One of the principal problems of the profession for the next decade will be the recruiting of teachers.

Bills to exempt retirement incomes, or some part thereof, from the income tax continue to fall in the Congressional hopper.

Correct

this loss of teachers' time

with an

IBM
TRADE MARK



Test Scoring Machine



Teachers need not spend tedious hours marking and scoring examination papers.

The IBM Electric Test Scoring Machine does this job quickly, automatically . . . gives teachers time for other important work.

Schools everywhere are discovering that the IBM Electric Test Scoring Machine provides the easiest, most accurate method of processing objective test papers . . . up to 800 scores an hour. It can be used for all subjects and many grade levels. Operation is simple, the cost modest.

*For detailed information,
call the local IBM office or write
International Business Machines,
590 Madison Ave., New York 22, N. Y.*

INTERNATIONAL BUSINESS MACHINES

PROFESSIONAL LIBRARY

recent publications the school administrator will want to read, to pass along to associates, or "to have heard of"

The Uneducated

By Eli Ginsberg and Douglas W. Bray, Columbia University Press, 1953, 246 pp., \$4.50.

For educators, the content of this notable book is not news. The subject is the nation's waste of human resources due to inadequacies of education. The statistics are new and impressive, but the principles considered and conclusions reached are right in line with numerous forceful studies by professional educators. The study's importance lies in its background and possible prestige.

While Eisenhower was president of Columbia University, he initiated a large-scale research project called "The Conservation of Human Resources." *The Uneducated* is the first of the project's investigations to be completed.

Columbia's Graduate School of Business furnished the professional staff for the study. Dr. Ginsberg's field is economics; Dr. Bray's social psychology. Advisers and consultants represented varied fields (but none, education). Financial support was supplied by industry and the Ford Foundation. Examples of the thirteen influential corporation sponsors are General Electric, E. I. du Pont de Nemours and Standard Oil of New Jersey. Statistical compilations were furnished by the Federal Government.

From the fact that General Eisenhower initiated the project it does not necessarily follow that the man now President of the United States will endorse its recommendations. But the implications of his interest, and that of corporation sponsors, are promising. The book should carry prestige in business, industrial and governmental circles.

A word on the study itself. The problem of the uneducated, it is shown, has dire implications in three fields. These are military

security, economic well-being and democratic government.

Emphasis is on the first field, national security. There the issues are made obvious; experiences of the Armed Forces are transmitted to clear statistics. To a shocking degree, illiteracy lowers the number and caliber of Americans available for national defense. People of some sections of the country and certain minority groups such as Indians, migrant workers and Negroes are so poorly educated as to furnish a threat to national security. In case of future mobilization, the convertibility of civilians to soldiers will be the key to our survival.

Not so many tabulable figures are available in the second field, relationships between a man's education and his occupational ability. In this area, too, however, the need for national concern is made clear. The wealth of our nation is in its quality of labor, not its soil or territory.

The study dwells on the third field, internal democracy, only long enough to make the point that the complex nature of modern citizenship makes complete national literacy a basic need. Industrialization and urbanization, it is noted, have increased and deepened the problems with which a citizen must grapple intelligently if he is to function as a responsible member of society.

Federal aid to education is the study's recommendation—aid distributed to states "with a tax effort above the national average and a yield below the national average." Safeguards are proposed to protect minority groups.

Modern Education and Human Values

By A. T. Vanderbilt, et al., University of Pittsburgh Press, 1952, 134 pp., \$3.00.

Speakers of prestige and varied viewpoint have given consistently

top-form papers for the Modern Education and Human Values series of lectures at the College of Education, University of Pittsburgh. This volume, fourth to bear the same title, contains lectures delivered in 1951-52.

Some of these papers are sparked by fresh approaches; all are worth reading. Speakers, besides Chief Justice Vanderbilt of the New Jersey Supreme Court, were Philip Rhys Adams of the Cincinnati Art Museum; Samuel H. Goldenston, Rabbi Emeritus of New York's Congregation Emanu-El; Clyde Kluckhohn of Harvard's Russian Research Center; and William G. Carr, executive secretary of the NEA.

General Education in School and College

A Committee Report by Members of the Faculties of Andover, Exeter, Lawrenceville, Harvard, Princeton, and Yale; Harvard University Press, 1952, 142 pp., \$2.00.

Representatives of three preparatory schools and three universities studied the overlapping of secondary and college work in general education. They recommended better academic integration of the last two years of secondary school and the first two of college in order that students may not lose "intellectual momentum."

Higher Education Is Serious Business

By Harry L. Wells, Harper and Brothers, New York, 1953, 237 pp., \$3.50.

This rambling broadside at higher education comes from a man respected in educational and business circles. Mr. Wells has served for two decades as vice-president and business manager of Northwestern University. Before and during this period, he has held executive positions with large business and industrial firms, and

Why GAMBLE with SAFETY in Showers?



...Install

POWERS

Thermostatic

**WATER
MIXERS**

For the Most Comfortable
and Safest Showers



Why POWERS Thermostatic Water Mixers?

They're safer! They cost more, they're worth more! They're doubly safe against **temperature** as well as **pressure** fluctuations. They protect bathers against scalding caused by dead ends in hot water lines.

Temperature changes in water supply lines are more frequent now because of greater use of instantaneous, submerged and indirect type water heaters. Only a thermostatic mixer safeguards bathers from shots of hot or cold water caused by fluctuating water temperature.

When only one shower accident can cost so much in damaging publicity, personal injuries and time consuming law suits, why not install Powers . . . a really safe, non-scald water mixer?

To Be Sure of Comfortable Carefree Showers Install POWERS Mixers

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guidance. His aim is to incite more efficient use of facilities and professional talents in order that higher education may be sufficiently elastic to develop the abilities of individual students.

Student Participation in College Administration

By Frances E. Falvey, Bureau of Publications, Teachers College, Columbia University, 1952, 206 pp., \$4.00.

A recent trend toward student-faculty cooperation in curricular

as well as extracurricular phases of college life is welcomed by Dr. Falvey as evidence that liberal arts colleges are redefining their role in democratic society. An important social obligation of colleges, she notes, is to provide youth with vital experiences with democratic principles and methods. She seeks to facilitate the movement toward student participation in administration. For students, faculties and administrators she outlines the history, objectives and techniques of college community government.

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Encyclopedia of Aberrations

Edited by Edward Podolsky, Philosophical Library, New York, 1953, 550 pp., \$10.00.

This volume treats the basic manifestations of abnormal behavior. Some terms are merely defined, others receive more elaboration. The material is arranged in alphabetical sequence for easy reference.

Health Instruction Yearbook 1952

By Oliver E. Byrd, Stanford University Press, 1952, 241 pp., \$3.50.

Each year Dr. Byrd selects some 250 articles and reports on healthful living and medical research which he compiles into a yearbook. This is the tenth in the series.

Dr. Byrd is a professor of education and director of the department of hygiene at Stanford University in Stanford, California.

Pamphlets of Interest

(Pamphlets published by National Education Association departments may be obtained by writing to 1201 Sixteenth Street, N. W., Washington 6, D. C. Office of Education publications may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

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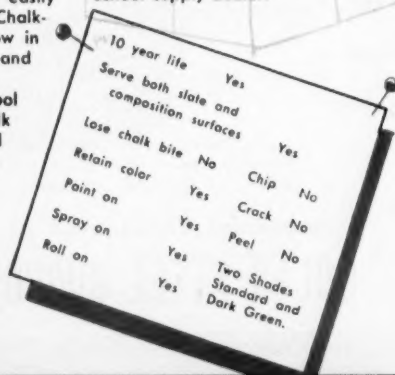
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providing financial assistance to local educational agencies in federally-affected areas. U. S. Office of Education. Price: 55 cents.

Administration of Vocational Education at State and Local Levels. American Vocational Association, Inc., 1010 Vermont Avenue, N. W., Washington 5, D. C.

Creative Educational Leadership for a Changing Region describes the work of the Southern States Co-operative Program in Educational Administration. Program Center, George Peabody College for Teachers, Nashville, Tennessee.

Putting PR Into HPER is a public relations handbook for school personnel in health, physical education and recreation fields. National School Public Relations Association, NEA. Price: \$1.00

The School Board and the Community and The School Board and the Administrator are reports of the Central New York School Board Institute. Bureau of School Service, School of Education, Syracuse University, Syracuse 10, New York. Price: 50 cents each.

State School Aid Facts for Legislators. New Jersey Taxpayers Association, Inc., 143 East State Street, Trenton 8, New Jersey.

A School for Young Citizens reports a project undertaken by the Office of Field Services of the University of Illinois to develop a sound educational program for a newly-created school district. College of Education, University of Illinois, Urbana, Illinois.

Curriculum

Social Studies for Older Children: Programs for the Middle Grades. National Council for the Social Studies, NEA. Price: \$1.50.

Local Policies for Agricultural Education in the Public Schools. Office of Field Service, College of Education, University of Illinois, Urbana. Price: 40 cents.

Evaluating Ninth-Grade Themes, II-



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linois English Bulletin. J. N. Hook, 121 Lincoln Hall, Urbana, Illinois. Price: 25 cents.

Democracy's Hope: manuals for teaching democracy in the elementary and secondary grades. City Board of Education, Nashville, Tennessee.

School Plant

Guide for Planning the Construction of School Buildings. State Department of Education, Concord, New Hampshire.

Planning Schools for Use of Audio-Visual Materials—No. 2, Auditoriums. Department of Audio-Visual Instruction, NEA. Price \$1.00.

Classrooms for How Many? is an enrollment handbook. State of New York Commission on School Buildings, Albany.

Studies and Reports

Rural Teachers in 1951-52, Volume XXXI, Number 1, Research Division, NEA. Price: 50 cents.

Students and Staff in a Social Context. American Council on Education, 1785 Massachusetts Avenue, N. W., Washington 6, D. C. Price: 50 cents.

Personnel Principles in the Chapter House. American Council on Education, 1785 Massachusetts Avenue, N. W., Washington 6, D. C. Price: 50 cents.

A Report Card on Oregon's Education Program. Legislative Advisory Committee, State Board of Education, State Capitol, Salem, Oregon.

Studies in Education: 1952. Thesis Abstract Series, Number 4. Indiana University Bookstore, Bloomington, Indiana. Price: \$1.00.

Florida Schools Look Ahead is a report of the State Department of Education, Tallahassee.

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SCHOOL LUNCH

"Won't you have a cup of tea?" says she. The author suggests that perhaps the young man's reluctance is due not to his charming hostess, but to the color of the teacup.

*for the same reason that you
like parsley on a lamb chop,
but shy at green applesauce . . .*

Lunchroom Colors Affect Appetite

by FABER BIRREN

A SPRIG of parsley on the potatoes, a dash of paprika on the cottage cheese, half a cherry on a whipped cream topping—any good chef or cafeteria supervisor uses such basic color appeals in food almost without thinking.

It has long been recognized that all humans hold definite associations between colors and foods. The cafeteria supervisor should make use of color research to ensure that colors in the environment in which food is chosen and eaten enhance rather than detract from the eater's pleasure in his meal.

Color-induced Illness

A few years ago the "stylish" use of chartreuse green in the cabin of an airliner brought complaints of airsickness. Two factors were involved: first, the color was too bright and a source of glare; second, yellow-green reflected on human complexion in the narrow confines of an airplane will give one the impression that his fellow passengers are ill.

The severe constriction of the pupil of the eye in reaction to the glare

caused visual distress and an odd feeling in the pit of the stomach, and the emotional associations of the yellow-green heightened the effect.

It is a curious but readily verifiable fact that certain colors are appetizing while others have unfavorable associations. The yellow-green just mentioned is distasteful, while peach is "good enough to eat."

In commercial food products color-food relationships are extensively exploited. Butter is artificially tinted, for pale butter may resemble lard and too rich a tone may suggest rancidity. Oranges tinted to a precise color will sell for a higher price. While color contributes nothing to the flavor or nutritive value of gum drops, no one would question the appeal it adds. On the other hand, the baking of tinted bread some years ago proved a failure, for bright colors are not associated with bread and will make the product seem distasteful.

In actual tests green plates have been found to improve the sale of salads by as much as 25 per cent. Rich tones of salmon pink have

Faber Birren, of Faber Birren & Company, New York, is a nationally-known authority on color.

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SCHOOL LUNCH

Lighting is very important in lunchrooms. A bluish fluorescent light can make the best food seem unappetizing.

proved superior to other colors in attracting customers into a restaurant and getting them to spend more for a meal.

In school lunchrooms the same wise choice of color should be made. Dirty tones of buff, sickly greens, faded tans and browns leave the same impression as leftover foods. They discourage the appetite even before the foods themselves may be seen or selected.

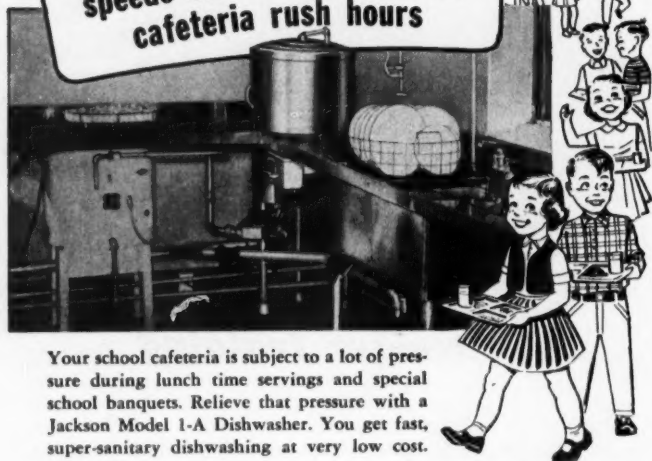
Blue for Background

In psychological tests, the reactions of hundreds of persons have been carefully studied. In rich colors the most appetizing are red-orange, clear yellow and clear green. (While blue is not in itself an "appetite" color, it seems to glorify the appealing qualities of food colors by providing an ideal background for them.) In pale tints the best ones are peach, pink, soft yellow and soft green. In deep shades the best are mellow tans and browns. Colors definitely distasteful are yellow-green, olive green, gray, greenish browns and, to some extent, purple, violet and lavender.

These reactions, of course, apply to foods and to food service areas, not to other applications such as classrooms, auditoriums, shops and the like. And because commercial restaurants have learned the value of a functional approach to decoration, schools would do well to take the same practical and wholly justifiable view.

Some years ago the writer conducted a rather extensive test in a factory cafeteria. Colored views of the room done in a variety of color schemes were put on display and examined by the employees as they entered for lunch (in a hungry state, incidentally). The same drawing was done in a variety of color schemes. By all odds the one in highest favor showed walls in a mellow tint of peach, with other details in blue. The second favorite comprised

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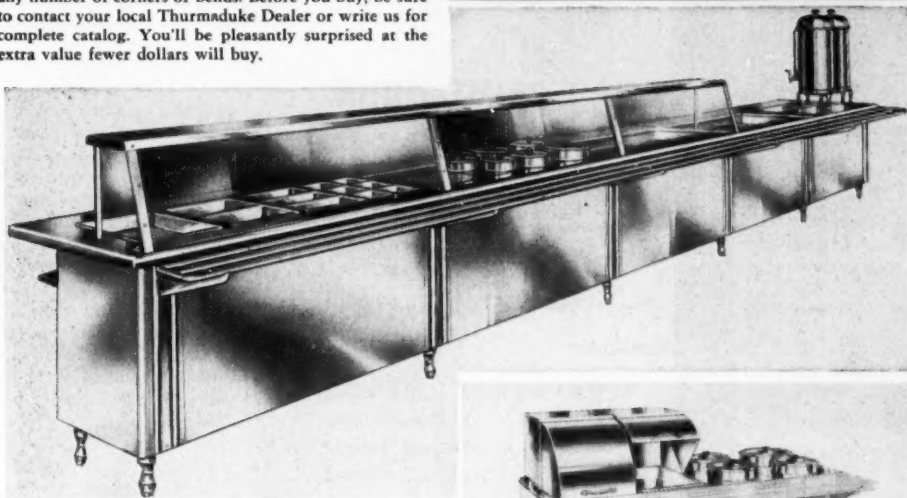
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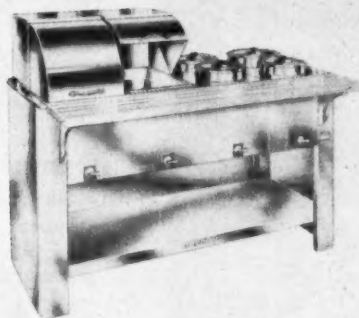
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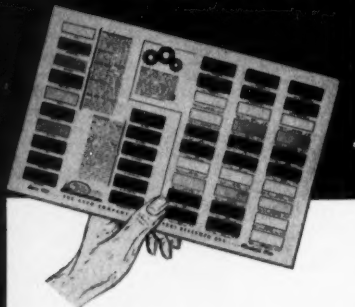
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SCHOOL LUNCH

cool green walls, with other details in tones of maroon. From this and other data two sets of color specifications for school cafeterias may be described.

Tested Color Schemes

Scheme A. Let the ceiling be white for high light reflection. The walls may be in a tint of peach. If a dado is added, this should be a deeper coral (but not brownish). The walls back of the food service area may be a fairly deep tone of blue by way of contrast. Counters on which food is placed should be polished metal or white. The floor may be natural wood or a hard surface material such as asphalt tile in a marbled pattern of (a) gray and blue or (b) terra cotta. Draperies, if any, and chair covers may be a patterned design combining red, yellow, green, blue on a white or natural ground. These pure accent colors should be incidental and bright to give the area variety and interest.

Scheme B. The ceiling should be white so reflected illumination will not distort the natural color of foods. The walls should be in a tint of cool green with the dado in a richer shade of the same hue. The walls back of the food service area may be maroon or a fairly rich terra cotta. Counters should be natural metal or white. The floor may be natural wood or a marbled pattern of (a) tan with green or (b) tan with terra cotta. Draperies and textiles (if any) may be as above for Scheme A. Here simple, primitive colors are preferred to exotic ones, and appetizing colors to unappetizing ones.

Lighting Important

Illumination is of great importance; care should be taken in the choice of artificial light sources. Daylight and incandescent light are entirely satisfactory. The worst light source would be a daylight fluorescent which radically distorts food colors (3500 degree and 4500 degree fluorescent tubes are not much better). Where fluorescent light is installed, the so-called deluxe white tubes should be utilized, preferably in warm white. These relatively new light sources emit red radiation which is quite flattering not only to foods but to human complexion.

THE SCHOOL EXECUTIVE



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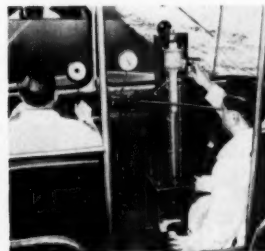
These facts show why you can depend completely on the new Ford School Bus Safety Chassis



COMFORT! Springs, frame and axles receive a thorough testing at the Ford test track. On this stretch of cobblestone road, a Ford School Bus gets a far rougher "ride" than under most normal service conditions. Ford School Bus Chassis provide many comfort features, such as progressive-type, multi-rate rear springs.



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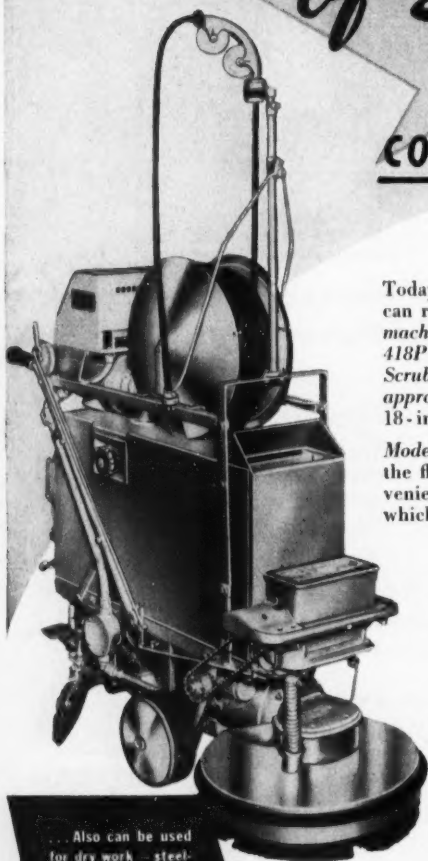
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School Equipment

News

School Bus Has Better Pulling Power

SE-301



The new school bus illustrated above is the Carpenter Corsair transit-type coach. Some of the features that it incorporates are: better pulling power, even on slippery surfaces; greater maneuverability under all traffic conditions; shorter turning radius; ideal weight distribution; more passengers per length of unit and more spacious seating of passengers.

Seating capacity is 61 passengers. Overall length is 31'4", overall width 96", headroom 72". Engineered for maximum safety.

CARPENTER BODY WORKS, INC., Mitchell, Ind.

Stacking Cots Sturdy for Daily Classroom Use

SE-302



The F-60B line of stacking cots is unconditionally guaranteed to stand up under daily classroom use. The cot has a tubular duraluminum frame. Because of the unique U-shaped design of the legs, it is springy and comfortable to lie on. It is easy to

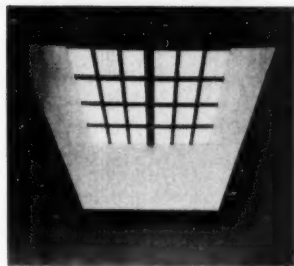
stack and light enough for a child to handle without teacher help. Removable canvas allows frequent washings in conformance with accepted health standards.

The units stack 30 high in floor space of one cot, 48" high. Dimensions are: 12" high; sleeping frame 25" x 54"; floor space 31" x 59". Weight is 4 lbs.

SCHOOL INTERIORS CO., 5 University Pl., New York, N. Y.

Skylight Also Provides Good Insulation

SE-303



Development of a new glass unit for skylighting schools has been announced by the Kimble Glass Co. The unit consists of two pieces of pressed glass hermetically sealed together with a sheet of Fiberglas between. Known as the Kimble Toplite System, the glass units are laid in factory fabricated aluminum grids and are ready for installation.

Prisms on the inside of the top piece of glass are designed so that the amount of daylight and solar heat transmitted into the interior vary, depending upon the location of the sun. The second piece of glass is designed to distribute the light to the area below. The sheet of Fiberglas, .002 inches thick, softens the light transmitted through the unit and augments the insulating effect of the vacuum between the two pieces of glass.

THE KIMBLE GLASS CO., Sub. of Owens-Illinois Glass Co., Ohio Bank Bldg., Toledo 1, Ohio.

Tables Can Be Adjusted in Height

SE-304



American Seating Company's new adjustable Universal tables provide nine heights, in one-inch increments, with just two different standards—one adjusting to 21, 22, 23, 24, and 25 inches in height for the lower grades, and the other to 25, 26, 27, 28, and 29 inches for the upper grades.

A specially-designed, variable-height clamp and latch allows each standard to adjust evenly to the height desired. In addition, an exclusive knee-action in the sturdy clamp compensates for uneven floors when the single bolt is tightened, thus eliminating teetering for all but the most severe irregularities.

Especially useful in schools of varying enrollments, these new tables can be shifted from room to room and adjusted to fit the new height requirements.

Tops are heavy, cored-plywood construction, bonded with hot-press, urea-resin adhesive for maximum strength and moisture-resistance.

AMERICAN SEATING CO., Grand Rapids, Mich.

(Continued on page 134)

Solarometer

Measures Daylight



A Solarometer, designed, built and operated by the Libbey-Owens-Ford

SE-305

Glass Co. can be used to obtain precise information on daylighting facilities of school buildings. By subjecting a block model of a proposed building to solarometer measurements, complete information can be obtained on the angle of sunlight cast on any part of the building at any hour on any day of the year, and for any latitude in the Northern Hemisphere.

The solarometer is synchronized with a globe. The latitude and longitude of the building location having been set on the globe, a light on the solarometer is then caused to move across the model, simulating the path of the sun from its rising to its set-

ting. Visual demonstration of the angle of sunlight cast upon the building and of the shadows created by the building itself is thus provided.

The solarometer performs a valuable service to architects in helping them select the type of glass best suited for a particular job.

LIBBEY-OWENS-FORD GLASS CO., Toledo, Ohio.

Sponge Mops

On Stainless Steel Hinge

SE-306



The new Speedway line of three janitorial moppers are identical in design except for size. The largest, or Giant, size has a $4\frac{1}{2} \times 14$ " replaceable cellulose block sponge head, on a stainless steel hinge. When the wringing handle is pulled down, the sponge squeezes damp dry against itself. Next in size is the Intermediate mop with a $3\frac{1}{2} \times 11$ " mop head. The smallest size, the Maid, has a $3 \times 8\frac{1}{2}$ " head.

E. I. DU PONT DE NEMOURS & Co., Wilmington, Del.

Projection Screen

For Daylight Projection

SE-307

Teaching films, slides, or filmstrips can now be shown in the classroom without the inconvenience of blackout and without loss of ventilation, using the Seminar Screen. Teacher and projector are both at the front of the room, no one can get in the way of the beam, and pointing does not cast a shadow. Unusually wide viewing angle makes it possible to group classes compactly.

The Seminar Screen folds into a portfolio $18\frac{1}{2} \times 13\frac{1}{2} \times 1$ ". A non-warping, heavy duty plywood panel supports a polished alzac mirror, impervious to breakage, clouding, finger marks, etc. A second panel hinged to the first holds a specially treated multi-ply vinyl plastic screen. A third flap, which protects the screen in carrying, flips over on top to form a light baffle when the screen is opened for use.

SEMINAR FILMS, INC., 347 Madison Ave., New York 17, N. Y.

SE-78

on 30 years of
proven performance with
SOLAR'S line of
SELF-CLOSING
WASTE
RECEPTACLES

The stamp of approval which you have placed on Solar's line of original self-closing waste receptacles has been acquired through years of producing quality units.

In every conceivable type of location you will find Solar Self-Closing Waste Receptacles. With its exclusive gravity self-closing top, the Solar Receptacle has become a sanitation "must" in schools, hospitals, food processing plants, factories, municipalities and countless other institutions. It has no springs, weights or hinges to get out of order. The very simplicity of the Solar top is our assurance to you of satisfactory service.

Your premises will be neater, cleaner and safer with Solar Self-Closing Waste Receptacles. Write for additional information.



SOLAR-STURGES Mfg. Div.
PRESSED STEEL CAR COMPANY, INC.
Melrose Park, Illinois • Austin 7 - 1964

Designed for safety . . . built for the job!



CHEVROLET SCHOOL BUS CHASSIS



212-INCH WHEELBASE SCHOOL BUS CHASSIS

Gross vehicle weight, 13,500 or 16,000 pounds, depending on tire equipment. Accommodates bodies of 48- to 54-pupil capacity. Chevrolet Loadmaster valve-in-head engine, 200 foot-pounds torque (pulling power) at speeds governed under 35 m.p.h. Heavy-duty brakes; Torque-Action, front; Twin-Action, rear; Dual-Shoe, parking.

199-INCH WHEELBASE SCHOOL BUS CHASSIS

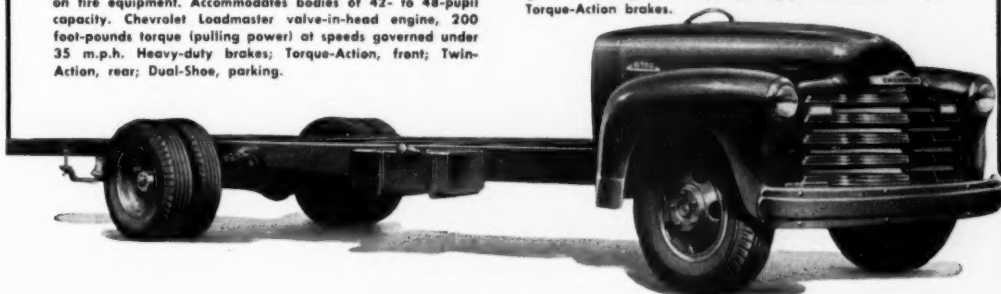
Gross vehicle weight, 13,500 or 16,000 pounds, depending on tire equipment. Accommodates bodies of 42- to 48-pupil capacity. Chevrolet Loadmaster valve-in-head engine, 200 foot-pounds torque (pulling power) at speeds governed under 35 m.p.h. Heavy-duty brakes; Torque-Action, front; Twin-Action, rear; Dual-Shoe, parking.

161-INCH WHEELBASE SCHOOL BUS CHASSIS

Gross vehicle weight, 10,500 or 12,000 pounds. Accommodates bodies of 30- to 36-pupil capacity depending on tire equipment. Thriftmaster engine, 176 foot-pounds torque (pulling power) under 35 m.p.h. governed speed. Heavy-duty brakes; Torque-Action, front; Twin-Action, rear; Dual-Shoe, parking.

137-INCH WHEELBASE JUNIOR SCHOOL BUS CHASSIS

Gross vehicle weight, 7600 pounds. Accommodates bodies of 16-pupil capacity. Chevrolet Thriftmaster valve-in-head engine, 176 foot-pounds torque (pulling power) under 35 m.p.h. Torque-Action brakes.



Round Saws

SE-308

Available Bushed $\frac{5}{8}$ "- $\frac{1}{2}$ "



Simonds high quality Si-Clone Saws with round centerholes are now available bushed $\frac{5}{8}$ "- $\frac{1}{2}$ " in 6", 7", 8", and 9" diameters.

Saw types now furnished bushed

include Rip, Cut-Off, No. 52, 54, and 60 Combination, Easy-Cut and Planer. Each package is clearly marked to show that the saw is bushed and a small card in the center of the saw gives directions on removing the bushing where a $\frac{5}{8}$ " center-hole is desired.

These saws are also available unbushed with $\frac{1}{2}$ " and $\frac{5}{8}$ " centerholes.

SIMONDS SAW & STEEL CO., Fitchburg, Mass.

Color System

SE-309

For Interior Wall, Trim Paints

The Optonic System is a scientific

method of color selection originated by The Arco Company, manufacturers of paints.

The system is based on the use of six colors—blue, green, tan, coral, yellow, and gray. Each color, except yellow, has four graduated shades of varying light reflectance. Two shades of yellow, plus Caenstone and Ivory White for ceilings, are also available. Each Optonic Color harmonizes with every other, and the shades of the basic colors are numbered from 1 to 4, indicating degrees of light reflectance of each.

According to the system, basic colors are selected to complement and soften the predominant color of the working light, natural or artificial. The system is based around the Arco-tone line of oil-base and latex-base interior wall and trim finishes. Made for application by brush or spray, the paints are formulated for speedy painting production, durability and color permanence. A complete range of textures is offered.

A folder, explaining the system, with color chips to show the available shades may be obtained from the company.

THE ARCO CO., 7301 Bessemer Ave., Cleveland 27, Ohio.

SE-39

Erickson Fold-A-Way

TABLES - with - BENCHES*

Transform CORRIDOR into LUNCHROOM

in **6 MINUTES...**

with **1 MAN!**




De LaSalle High School, Minneapolis, Minn. 11 Wall - 3 Portable Models - Maximum Seating Capacity 226 Pupils. Multi-Use of Space Does Not Conflict with Local Fire Ordinances.

Erickson

Fold-A-Way Tables with Benches Feature the Advantages that Make it Possible!

- Dual use of space.
- Easy to fold and simple to unfold
- Benches fold with table, in one operation
- Lower floor cleaning costs up to 50%.
- Save time, labor, upkeep, expense; eliminate noise, confusion
- Portable model can be moved to any location
- Wall model can be hung to existing wall, recessed or enclosed

*Also available without benches

Wall and Portable Models Give 100% Flexibility to any Area.

ONE Custodian unfolds the 11 wall model tables with benches in the photo (left above) wheels out and unfolds three portable model tables with benches—in 6 minutes!

PLANNING ASSISTANCE

Send us your floor plan. Our engineers will plan your lunchroom, gym cafeteria, corridor or classroom, new or old, to give you the best seating arrangement and room flexibility. Or ask for our new, descriptive bulletin.

HALDEMAN-LANGFORD
MANUFACTURING COMPANY
2582 University Ave.
St. Paul 14, Minn. Phone: NE 5-6139

SE-310

Lighting Fixture Hangers In Unusual Installation



The Thompson Electric Co. announces the use of 89 Thompson disconnecting and lowering lighting fixture hangers in the new Struthers Memorial Gymnasium, Struthers, Ohio. This installation is unusual because all 89 hanger operating cables terminate in two recessed cabinets located side-by-side on an end wall. A system of pulleys was required to gather and terminate all cables in one location without impairing the hangers' operations. Standard 2-pole hangers were used in conjunction with 1000-watt Millite luminaires, which are suspended 30 feet above floor level.

THE THOMPSON ELECTRIC CO., 1127 Power Ave., Cleveland 14, Ohio.

REMEMBER?

ORDER YOUR MAINTENANCE AND FLOOR TREATMENT
SUPPLIES NOW FOR SUMMER CLEAN-UP

Check Your Supplies Now

FLOOR AND GYM FINISHES
FLOOR DRESSINGS
WAXES • FLOOR SEALS
SANITARY SUPPLIES
DISINFECTANTS • SUPPLIES AND
MAINTENANCE EQUIPMENT

HILLYARD

Maintaineers (floor treatment experts) take the worry out of summer school clean-up problems for you. After you lay out your work program and are away for the vacation period the Hillyard Maintaineer will follow through with your janitorial staff. His services are free. He will recommend the best and most economical methods and materials. He's a trained floor expert and can guarantee that the work you lay out will be thoroughly accomplished. Be sure to order supplies early to avoid late arrivals or shortages that mean costly delays. For faster service, wire or call us direct.



Send Now For FREE
Inventory and Check List

Handy Complete
Inventory
Form Makes
the Job Easy

Includes check
list of work—
Makes Planning
EASY

... The Hillyard
Maintaineer is on
Your Staff—Not
Your Payroll

HILLYARD CHEMICAL COMPANY ST. JOSEPH, MISSOURI

Dear Sirs,

- ☐ Please send today a FREE copy of your Complete Inventory and Check List.
☐ Please have the Hillyard Maintaineer in my territory call NOW.

NAME _____
SCHOOL _____
POSITION _____
ADDRESS _____
STATE _____



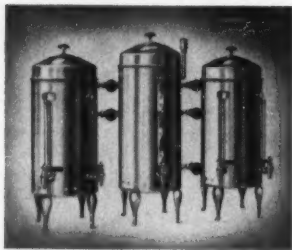
St. Joseph,
Missouri

Branches and Warehouse Stocks in Principal Cities

Coffee Urns

SE-311

Seams Are Completely Water-tight



The 1953 line of Sealweld Coffee Urns has been announced by S. Blickman, Inc. The bottom and ver-

tical seams of these stainless steel urns are electrically welded into continuous water-tight seals, protecting seams against leaks and burnouts. The seams cannot melt out like soldered joints, are practically indestructible, and will last as long as the urn.

Several new construction features add to ease of cleaning and durability. The usual filler cup is eliminated from the body of the urn. Only one liner tube is used instead of two, since the coffee gauge glass is now connected to the coffee faucet. Detachable head coffee and water faucets are easily removed for cleaning.

S. BLICKMAN, INC., Weehawken, N. J.

Ash Cart

SE-312

For Boiler Room Ashes

The new Rol-A-Way Ash Cart is designed for the removal of boiler room ashes and can also be used for machine shop parts. Made of heavy steel, the unit is scientifically constructed to receive ashes direct from the average 20" high grate line. It eliminates pulling the ashes onto the floor and then shovelling them into a container.

Capacity is over 5 cubic feet. The handle folds down for easy access to the fire door.

AMERICAN COAL BURNER CO., 18-V East Erie St., Chicago 11, Ill.

SE-41



IN THE SCHOOL SHOP

Spotlight



TOLCO FOUR STUDENT WOODWORKING BENCH

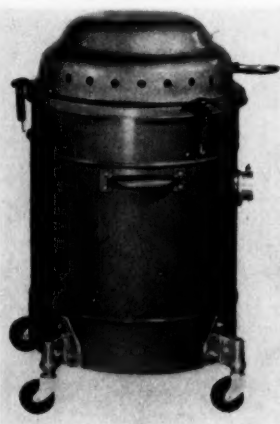
Remodel your old or equip your new shop with precision built Tolco benches. 36 models to fit every purse and person. Model TM-12 shown has heavy metal base with 12 lockers. Hard maple, edge grained top is electronically glued to last generations. Tolco tops, 2 1/4 inches thick, have more laminations per foot of board width for durability. Save valuable space and money by installing Tolco four student benches.

THE TOLERTON COMPANY
 264 N. Freedom Ave. Alliance, Ohio
 Established 1894 Our 59th Year

Vacuum Cleaner

SE-313

For Wet, Dry Pickup



With a powerful motor to provide 56" water lift vacuum and a second motor to ventilate the power unit and keep it free of water and dirt, the Vacu-Master offers the solution to one-person operation in wet and dry pickup operations as well as in furnace cleaning.

It holds a bushel of dirt or ten gallons of water, passes over 220 cubic feet of air per minute and eliminates the need for sweeping before scrubbing operations. After scrubbing, the Vacu-Master picks the scrubbing solution by suction off floors of wood, brick, mosaic, inlaid linoleum, rubber or other type floors, completely eliminating mopping.

When used as a furnace cleaner, it operates with a disposable paper filter flameproof bag which holds one bushel of dirt.

EMPIRE CHEMICAL PRODUCTS CO., 10 Longworth St., Newark, N. J.



portrait of an engineer...

Engineers are a happy lot, until faced with a moment like this:

A recording is completed. The disc is put on the playback table . . .
but it's full of "pops," "ticks" and "hisses".

This can easily happen in the life of any engineer, if he has not been
discriminating in his selection of recording discs.

If this picture fits you . . . you are ready for a change in brand. And the
wisest change is to PRESTO Green Label discs . . . because this label is your
assurance of the smoothest lacquer surface available and
top performance every time.



EXPORT DIVISION: 25 Warren Street, New York 7, N. Y.

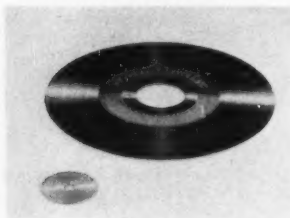
CANADIAN DIVISION: Walter P. Downs, Ltd., Dominion Square Bldg., Montreal

WORLD'S LARGEST MANUFACTURER
OF PRECISION
RECORDING EQUIPMENT AND DISCS

Manufacture of a lacquer-coated disc is one of the most *exacting* of all industrial processes. It has taken PRESTO many years of chemical research and constant improvement in every phase of manufacture to produce the famous *Green Label* disc. Even after manufacture, many hundreds of discs are rejected before those are chosen to bear the respected insignia . . . PRESTO Green Label.

7" Recording Discs For 45 RPM

SE-314



Audio Devices, Inc. has perfected and is now producing 7" lacquer-coated aluminum-base sound recording blanks for immediate playback on any 45 rpm phonograph.

These new Red Label Audiodiscs

have the standard 1 1/2" diameter center hole and are designed to use a center-hole adapter when recording. The adapter is placed over the center pin on the recorder table, fitting snugly within the center hole of the disc. The turn-table drive pin engages the drive-pin hole of the disc in the usual manner. After recording, the disc is ready for immediate playback on a 45 rpm phonograph without any additional punching-out operation. This assures a smooth, clean center hole which will operate freely on automatic changer mechanisms. Paper labels on both sides provide ample clearance between adjacent surfaces of stacked discs.

AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N. Y.

Insecticide

SE-315

New, All-Purpose Product

A wide range of garden pests including aphids, mites, scales and other insects can be attacked with one, easy-to-use insecticide called Malathion. Described as one of the safest insecticides to handle, it permits gardeners to use one spray or dust instead of several specific killers.

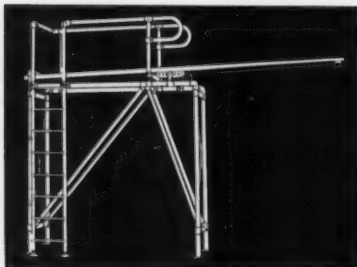
Tests made so far indicate that the product will not produce resistant strains of insects. Malathion is now being sold in special formulations by many well-known manufacturers.

AMERICAN CYANAMID CO., 30 Rockefeller Plaza, New York 20, N. Y.

BUY LONG-LIFE EQUIPMENT FROM

THE RECREATION LINE

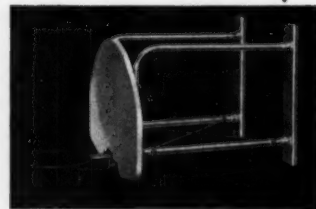
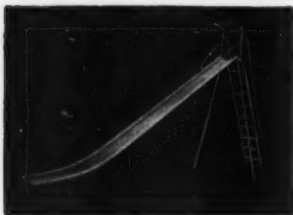
SE-43



Swimmers enjoy the advantages of regulation Recreation diving boards... accurate springing, exact height, secure footing.

Diving Board Outfits in 3-meter and 1-meter sizes meet all requirements of the N.C.A.A. and A.A.U. rules. Available with Dual Fulcrum or quick adjustment fulcrum. Many champions have performed on our championship equipment.

BASKETBALL—Indoors or outdoors, you can select Recreation backboards and goals to suit your needs. New designs for wall-braced basketball backboards. Sturdy fan-shaped boards. Swing-up type frames. Special portable frames for glass backboards for field-houses or sports coliseums. All constructed of hot galvanized steel pipe with malleable iron or brass fittings.



For Better Playgrounds

Playgrounds are essential to the best development of children and the recreation of older boys and girls, as well as grown-ups! For 20 years, Recreation Products have been installed in playgrounds throughout the United States. The long-time performance of Recreation Products testifies to their excellent quality. That's why more and more playgrounds are being equipped from the Recreation Line.

Send for
Complete
Catalog

**FILL OUT
AND MAIL
COUPON
TODAY!**

RECREATION EQUIPMENT CORP.,
724 W. 8th St., Dept. SE5, Anderson, Ind.
Please send me your complete catalog and name of
dealer nearest me.

Name & Title

Street

City

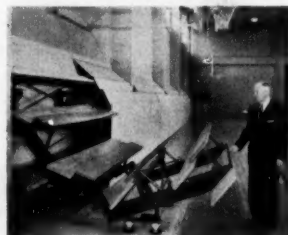
State



Bleachers

SE-316

Fold Up Against the Wall



The Beatty Rollway Bleachers above provide extra inches of knee room between rows, enabling spectators to sit in normal position with knees straight ahead. There is also extra height between rows. The bleacher row will accommodate up to 40% more persons.

Designed primarily to meet the need for flexible, space-saving gymnasium equipment, these bleachers provide anywhere from 4 to 24 rows of seats when extended, and fold up against the wall, occupying space only 2'6" deep, thus freeing valuable floor space for other uses.

One person can extend or fold a 16' bleacher section in a few seconds. Floors are protected from marring by a plywood base.

Even distribution of weight through a bolted hanger at the wall, a plywood-covered, light-weight I-beam at the front of the stand paralleling the wall, at the center where the down weight causes a heavy piece of spring steel to engage a 4' x 6" plus total lineal sleeper with the floor, further protects the floor and places minimum stress on the wall.

BEATTY SCAFFOLDS, INC., Tunnel Ave., and Beatty Rd., San Francisco 24, Calif.

Samson Offers Schools And Churches 3 Great New Developments In Folding Furniture!



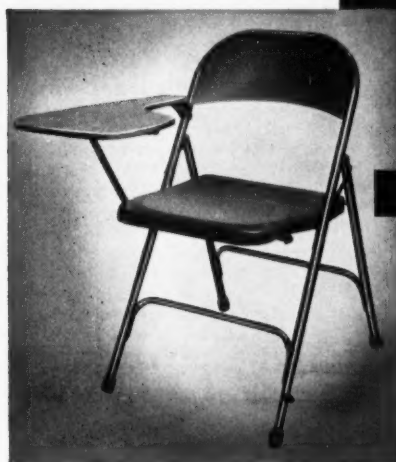
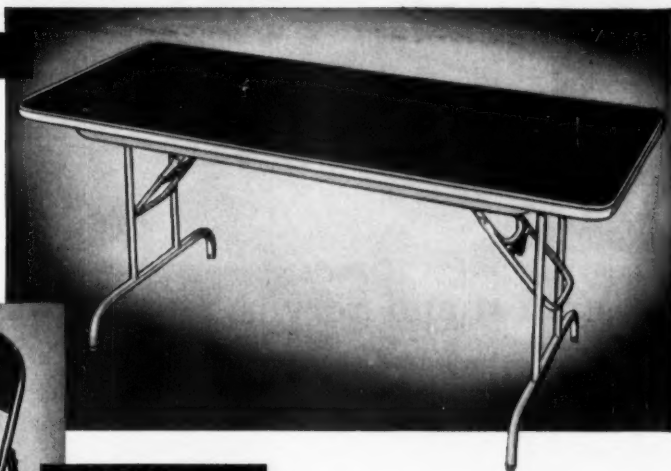
Here are three new reasons why buyers of public seating equipment everywhere call Samson their number one buy! The new Samson products shown on this page will give your school or church *more value* for every dollar it spends on public seating. They feature real *extras* in strength, safety, long life and economy!

NEW...

Samson Folding Chairs are upholstered in heavy-duty vinyl—actually 50% heavier than vinyl material designed for home use! Easy to clean! Super-resistant to scuffing and stains! Keeps new-looking longer! *No extra cost!*

NEW...

Samson Banquet Table has greater strength with less weight than any folding table of its size! Damage-resistant top of Masonite or plastic. Exclusive safety lock prevents legs from folding accidentally. Sets up or folds away easily, stores compactly. Now in 6- or 8-ft. lengths, 30" wide.



NEW...

Samson Tablet-Arm Chair is ideal for schoolrooms and meeting rooms of all kinds. Tablet-arm of five-ply selected hardwoods, one-half-inch thick. Seat is concave-formed, and back rest is compound-curved for extra comfort. Legs and frame are of 19-gauge tubular steel, electrically welded for extra strength!

"How To Save Money On Public Seating" is a helpful, free booklet that we'll be glad to send you—please write us on your letterhead! Ask your Samson Public Seating distributor about the special low prices on quantity purchases of tables and chairs; or write us direct for further information.



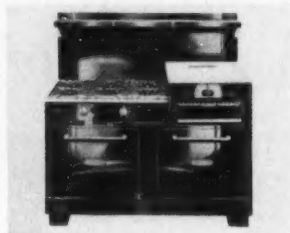
Strong Enough To Stand On!

SAMSON FOLDING CHAIRS ARE USED BY SCHOOLS AND CHURCHES EVERYWHERE!

Shwayder Bros., Inc., Public Seating Division, Dept. W-4, Detroit 29, Michigan
ALSO MAKERS OF FAMOUS SAMSON FOLDING FURNITURE FOR THE HOME AND SMART SAMSONITE LUGGAGE FOR TRAVEL

Ranges

With Extra-Large Oven Capacity



The 1953 line of South Bend Cafe Ranges has two new design features. For the first time, body ends and

SE-317

fronts, valve panels and filler panels have all been formed from single steel sheets. This results in unbroken, seamless surfaces on fronts and sides of the ranges, and eliminates many dirt-catching crevices. Combined with the all-welded heavy steel chassis, the construction forms a rigid unit that will give many years of trouble-free service. The other design feature results in the extra-large oven capacity, without changing the outside dimensions of the range. This was accomplished by eliminating waste space at the rear of the range and increasing oven depth by 2". This also permitted installation of an extra inch of insulation material at the back of the oven. The

oven is porcelain-lined and seamless.

Round, one-piece cast iron burners are 4" in diameter with gas ports on the sides to reduce clogging. They are equipped with push-button lighters. Rating of these burners is 12,000 B.T.U. per hour each.

MALLEABLE STEEL RANGE MFG. CORP., South Bend, Ind.

Electric Eel

SE-318

Has Gasoline Engine

Sewer, wasteline, and field tile cleaning in districts where electric power is not available can be accomplished with the new gasoline engine powered Electrical Eel. It cleans out roots, stones and debris in one speedy, thorough operation.

Weighing only 66 lbs. for easy portability, the Eel is designed to clean pipe 1 1/4" in diameter and larger and has sufficient power to handle 300 ft. of cable. The 1 1/2 h.p. gasoline engine is back geared 6 to 1—has an instantaneous kick-out and an adjustable friction clutch between the engine and the cable.

THE OHIO TOOL AND ENGINEERING CO., 160 N. Spring St., Springfield, Ohio.

Water Coolers

SE-319

In New, Self-Contained Line

Frigidaire Div., General Motors Corp. has introduced a broad new line of bottle and pressure-type drinking water coolers. They are available in three pressure-type and two bottle-type models, featuring compact, lower design and new operating features in both. All are self-contained and powered by the Frigidaire Meter-Miser refrigerating compressor.

The pressure-type models have a capacity for cooling 6, 12 and 18 gallons of water per hour respectively. Innovations of the line include instantaneous cooling, which provides the user with a cold drink of water instantly; a toe-operated, electric bubbler control; a "Magic Action" bubbler that holds a uniform stream height even when water pressures are as low as 25 or as high as 150 lbs. A cold control allows the user to regulate the temperature of the water. All three of the models are the same over-all size: height, 38 1/2"; width 16"; and depth 18".

The two bottle-type models also have the new, lower design.

FRIGIDAIRE DIVISION, GENERAL MOTORS CORP., Dayton 1, Ohio.



SE-45

Comfort and Service Built In

Perfect comfort relationship between seat and back is a built-in feature of all the school chairs we manufacture. Separate chair and desk permit the most convenient and comfortable arrangements, and make for maximum utilization of available space.

Greater strength, longer service, and lighter weight are built-in features made possible by the cold rolled, specially processed steel construction. Patented all rubber or pussyfoot steel-face rubber glides insure minimum noise in the classroom.

Desk heights available: from 20" to 29" in one inch intervals.

Chair heights available: from 10" to 17" in one inch intervals.

OUR FIRST THOUGHT...

TO MAKE PRODUCTS THAT LAST!

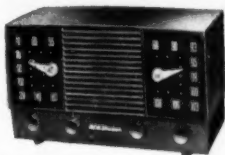
See your local dealer or write

THE TOLEDO METAL FURNITURE COMPANY

1105-1200 HASTINGS ST., TOLEDO, OHIO

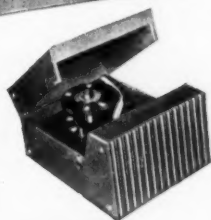
"... since 1897"

Experience proves
**RCA your best buy
 in Audio Visual Aids**



RADIOS

- A complete line of AM and FM receivers, with the "Golden Throat" sound system, to meet the specific needs of schools.



PHONOGRAPHS

- The finest three-speed and 45 rpm "Victrola" phonographs to satisfy all school record playing requirements.



TELEVISION

- VHF and UHF receivers up to 27" in size, with "Deep Image" picture tubes and "Magic Monitor," for the best reception of educational programs.



RECORDS

- RCA Victor offers a vast treasure of educational and Red Seal recordings for instruction and correlation, in music and other subject areas.



16mm. PROJECTORS

- Featuring simplicity of threading and easy operation in the single case "400" Junior, the two case Senior, and the latest professional-quality magnetic recorder-projector.



SOUND SYSTEMS

- Quality RCA equipment for school needs in single and two channel school sound systems, amplifiers, microphones and intercommunication systems.



RADIO CORPORATION of AMERICA
 EDUCATIONAL SERVICES, CAMDEN, N. J.

TMKS. ©

Mail Coupon NOW for complete information

EDUCATIONAL SERVICES, Dept. 109Q
 Radio Corporation of America, Camden, N. J.

Please send additional information on the following:

Name _____

Address _____

City _____ Zone _____ State _____

Ladder

SE-320

Has Roomy Work-Platform

Two workmen can work from the Dayton Heavy Duty Platform Ladder at one time, safely and easily. The ladder is equipped with wide steps and a roomy work-platform on the one side, and dowel-type steps on the other side. These dowels are reinforced with heavy steel truss rods. There is a generously-sized shelf at the top for placing tools, boxes, and other equipment and supplies for the job at hand.

The ladder is available in various

sizes from 4 to 16 feet in height.

THE DAYTON SAFETY LADDER CO.,
Dept. 19, 2339 Gilbert Ave., Cincinnati, Ohio.

Whiteprinter

SE-321

Medium-Priced, Volume Production Unit

The Speed Master Model S is a medium-priced, volume production, ammonia-type whiteprinter. It will exactly duplicate tracings, drawings, sketches, layouts, records, charts,



data sheets, letters, or any translucent originals whether drawn, written, typed, printed or photographed.

It uses a 2000-watt, high-pressure Vicor-jacketed glass lamp and the dry ammonia-fume method of diazo reproduction. Printing speed is from 6" to 14' per minute; develops fully at 8' per minute with no fading of prints nor need for double development. A newly-devised blower system provides coolest contact glass surface and protects originals. Handles cut sheets or roll stock up to 42" wide in any length.

Operation is on 220 volt, single phase 60 cycles AC, drawing 22 amperes; constant wattage transformer. The unit is 68" wide x 24" deep x 62" high.

PECK & HARVEY, 5650 N. Western Ave., Chicago 45, Ill.

Now Audio-Visual Education in every classroom
PATENTED
with LEMLAR Daylight-Control
ALL-ALUMINUM
Adjustable Jalousies!

LEMLAR Daylight-Control External Jalousies offer you a fast, easily-operated means of darkening classrooms from the inside for audio-visual education, while still permitting adequate ventilation.

Over 150 schools of all types, from elementary to university, in nearly 100 towns and cities use Lemlar equipment. Lemlar Jalousies:

1. Eliminate sun and sky glare from classrooms.
2. Give even distribution of diffused light throughout room.
3. By keeping direct sunlight from window glass, substantially reduce summer heat in classrooms.
4. Conform perfectly with good design principles, enhance beauty of buildings.
5. Protect windows from external breakage.

Lemlar equipment lasts for the life of the building and is specified by leading architects nationwide. Your own architects and engineers would appreciate your bringing it to their attention. For information on proper daylight control and how it can improve light conditions in your present or proposed classrooms, write today.

LEMLAR ALL-ALUMINUM
Daylight-Control
ADJUSTABLE JALOUSIES

give you all the daylight you can use

MFG. BY LEMLAR MANUFACTURING CO.
715 W. Redondo Beach Blvd., Los Angeles, Calif.
Mailing Address: P.O. Box 352, Gardena, Calif.

CLOSED
for complete darkness.

OPEN
for cool, diffused light, without glare.

Acoustical Material

SE-322

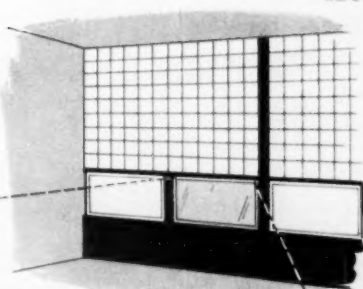
Used in Sarah Lawrence Auditorium



The auditorium shown above is in the new arts center at Sarah Lawrence College, Bronxville, N. Y. The main acoustical treatment was given with the aid of concrete blocks, many of which project into the auditorium in a geometrical pattern, and a sound-absorbing ceiling. The ceiling is covered with a one-half inch thickness of acoustical plastic over a five-eighth-inch coat of vermiculite plaster. The aggregate in each is vermiculite, produced by the Zonolite Company.

ZONOLITE Co., 135 S. LaSalle St., Chicago, Ill.

Brand new!



DUSKLITE

... a special glass for vision strips
used with PC Glass Block panels

Most school officials agree that panels of PC Functional Glass Blocks provide the ultimate in natural lighting for classrooms. It has been common practice for many architects to use them with clear-glazed vision areas because people usually want to see out. But shading devices commonly used to overcome the high brightness levels through these areas blocked the vision the architect was trying to provide.

Now, however, Dusk-lite, a completely new laminated safety glass developed and manufactured by Pittsburgh Plate Glass Company, provides the brightness control needed for these areas *without* blocking the vision. Thus,

the need for expensive, high-maintenance blinds, shades or louvers is eliminated.

Dusk-lite is neutral grey with a visible light transmittance of about 25%. It is available in $\frac{3}{16}$ " thickness and in sizes up to 15 square feet. Color perception through it is excellent.

If you send the coupon, we'll be glad to tell you how PC Glass Block panels combined with Dusk-lite vision strips can improve daylighting and save money.

**Pittsburgh Corning
Corporation**

PITTSBURGH 22, PA.



Pittsburgh Corning Corporation
Dept. 530, Pittsburgh 22, Pa.

Please tell me more about Dusk-lite and its use with PC Functional Glass Block Panels.

Name Title

School System

Address

City Zone ... State

Water Repellent

SE-323

For Exterior, Above Grade Masonry

A new formula with a silicone base has been developed by Ranetite Mfg. Co. as a water repellent. For surface application to exterior, above grade masonry, the product has the following advantages: it is quick to develop repellency after application; versatile—performs well on most types of masonry; easy to apply; highly effective against efflorescence; clear and invisible; and penetrates deeply.

Known as Ranetite No. 11, it is available in gallon, five gallon, and 55 gallon drums.

RANETITE MFG. CO., 1917 S. Broadway, St. Louis 4, Mo.

Folding Chairs

SE-324

Have Aluminum Frames

Lyon aluminum frame folding chairs are designed to combine beauty, comfort and strength with extreme light weight. In fact, they are



SE-49



how would your floors look

... after this

ENDURANCE TEST?



**NEW WAX PROVIDES
AMAZING WEARING
QUALITIES . . . AND**

**Safe
Footing**

anti-slip

SELF POLISHING WAX

still beautiful after 24,000 crossings

HERE'S a floor that's bright and beautiful and still non-slippery after four weeks of heavy traffic that included workmen coming and going during final construction and open house crowds. This heavy traffic during a period when there is bound to be lots of dirt proved the Anti-Slip Cosmolite Wax film was easy to maintain and that its surface did not show scuffs nor mar easily.

New Anti-Slip Cosmolite Wax brings a new measure of safety in the prevention of slippery floors. Cosmolite, a high quality, self-polishing wax made with yellow carnauba, is modified with colloidal silica to assure greater walking safety on any type of floor surface. Test it on your floors now! A free sample will be sent to you upon request.



COSMOLITE

HUNTINGTON LABORATORIES, INC.



Huntington, Indiana • Toronto, Can.

Schmall Apparatus

SE-325

For Determination of Salts

Scientific Glass Apparatus Co. Inc. announce that they are now manufacturing a new type of glass apparatus for the extraction and determination of salts or organic bases and acids known as the Schmall Apparatus.

The technique employed eliminates many hand operations. Instead of the conventional method which involves a number of individual extractions of the liberated base or acid with immiscible solvents using separators, followed by titration in aqueous medium, etc., this new procedure not only facilitates sample preparation, but extraction is automatic, washings are eliminated, and labor cost of analysis reduced. When used in conjunction with titrations in non-aqueous solvents, transfers are eliminated and sharper end points obtained.

Two types of extractors are available: one for use with solvents lighter than water; the other for those heavier than water.

SCIENTIFIC GLASS APPARATUS CO., Inc., Bloomfield, N. J.

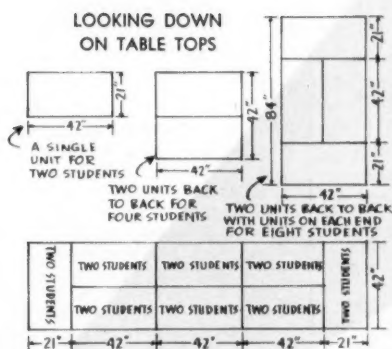
MAXIMUM EFFICIENCY WITH AMERICAN DESK'S

Airplane Table



Here is a desk unit that is gaining in classroom popularity through its great *Flexibility*. School after school has proclaimed how well this unit fits into all sizes, shapes and physical *Designs* of their various classrooms. It, of course, has been constructed with the famous American Desk combination of

Strength plus Beauty . . . spot-welded steel plus highly finished tops. Note, too, that it is available with either angular or tubular steel legs.



★ **FLAT-TOP**

★ **FUNCTIONAL**

★ **FLEXIBLE**

Function and Flexibility is illustrated here, showing the many arrangements the Airplane Table may achieve. For the greatest efficiency in your classrooms, specify the Airplane Table to your American Desk Dealer.



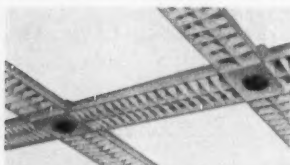
American Desk

MANUFACTURING COMPANY

MANUFACTURERS OF PUBLIC SEATING • • • Temple, Texas

Fluorescent Lighting SE-326

Units Can Be Combined



Astra-Lite is the name of a new and different series of fluorescent lighting fixtures. It provides an exceptionally flexible and economical method of illuminating classrooms, auditoriums, corridors, etc. The sys-

tem consists of two primary units which can be combined into a variety of ceiling patterns that will provide efficient lighting to satisfy the individual layout and lighting level requirements of any type of area. The multiplicity of arrangements includes such patterns as squares, rectangles, continuous straight runs, crosses, T, S, U, and X shapes.

The two basic units are a two-lamp fluorescent luminaire with lengths from 4 to 8 feet and a square fixture which serves as a connector, corner or intersection in the installation.

METALCRAFT PRODUCTS CO., INC., Mascher and Lippincott Sts., Philadelphia 33, Pa.

Light Switch SE-327

For Incandescent, Fluorescent Lighting

The Lifetime Quietie Switch is safe for use with both incandescent and fluorescent lights. It can be installed in any position, not just up and down as most quiet switches.

Other features include its compact size, fully enclosed mechanism, heavy Bakelite body, and the silver alloy contact tips that provide greater electrical efficiency and resistance to wear.

The switch offers optional back- or side-wiring with a handy Wire Strip Gage clearly marked on the back plate. This makes possible faster, safer wiring on both old and new jobs. The Quietie Switch is supplied with Ivorylite or brown Bakelite operating handles, or lock type with key for institutional applications. Available for 15 amperes, 120 volts and 277 volts, A.C. only; and 20 amperes, 120 volts, and 277 volts, A.C. only.

THE ARROW-HART & HEGEMAN ELECTRIC CO., 103 Hawthorn St., Hartford 6, Conn.

SE-51

Science Teachers Report

A GREAT TIME SAVER IN TEACHING



THE  SPENCER
SCHOLAR'S MICROSCOPE

HOW THE AO No. 78 SCHOLAR'S MICROSCOPE CUTS TEACHING TIME

1. Easy to learn to use.
2. Single focusing control—fast and precise.
3. Factory-focused built-in light source eliminates time consuming and frequently faulty substage adjustments.
4. Reversed arm position gives clearer view of specimen stage, objectives, and diaphragm openings.

Since we are currently supplying both military and civilian needs, instrument deliveries cannot always be immediate.

• The reports keep coming in—yes, the AO Scholar's Microscope does save time in teaching students microscopy.

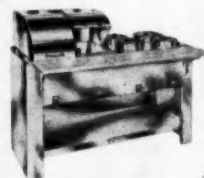
This radically new idea in microscopes has proven a boon to science teachers. The built-in light source assures permanently aligned illumination and consequently better optical performance with much less adjustment. Low overall height increases comfort in operation. Locked-in parts reduce maintenance costs. 'Spring-loaded' focusing mechanism protects slides against damage. See your AO distributor or write Dept. S71.

American  Optical

INSTRUMENT DIVISION • BUFFALO 15, NEW YORK

Food Warmer SE-328

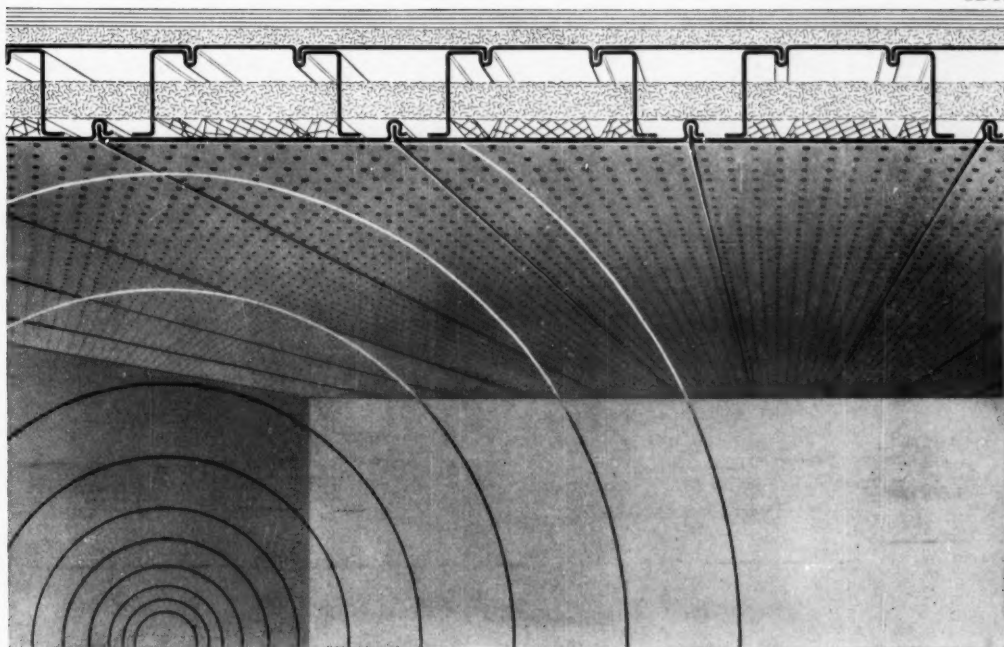
Provides Savings Up to 70%



The new Thurmaduke Sanitary Waterless Food Warmer provides savings up to 70% in operating costs and features easier cleaning, less maintenance and lower heat loss and humidity. The models are available in a complete range of standard sizes, from small buffet warmers to complete cafeteria counters, including portable food warmers for institutional use.

Since the Thurmaduke unit eliminates the old-fashioned water-pan, installation requires no water or drain connections. Selective Heat Control permits heat to be regulated by section to keep each type of food at proper temperature for minimum shrinkage and flavor loss. The top plates are interchangeable and available for any top arrangement desired. Construction is rugged, rigid, all-welded steel.

DUKE MFG. CO., St. Louis 6, Mo.



Here's noise-control . . . built in!

Here, the acoustical treatment is the *structural ceiling*—and the subfloor or roof above—saving time, labor, materials and money.

It's formed of Fenestra® Acoustical "AD" Metal Building Panels locked together side-by-side to form a tremendously strong, solid structure.

An "AD" Panel is a rigid metal box beam with a flat, smooth surface top and bottom and open space in between. The top surface forms the sub-

floor or roof deck. The perforated undersurface forms the ceiling. In the open space between is glass fibre insulation.

This new kind of acoustical ceiling is virtually indestructible. You can wash it or paint it without hurting its acoustical efficiency.

And it's *noncombustible*.

Write us for the whole money-saving story. Detroit Steel Products Company, Dept. SE-5, 3431 Griffin St., Detroit 11, Michigan.

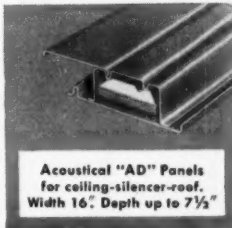
[®]Trademark

Fenestra

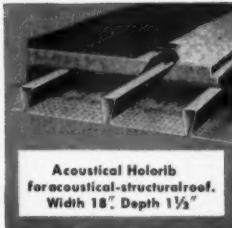
METAL BUILDING PANELS



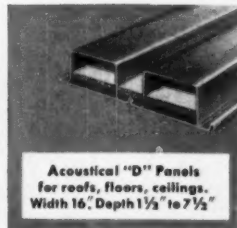
"C" Insulated Wall Panels.
Width 16". Depth is 3".
Steel or aluminum



Acoustical "AD" Panels
for ceiling-silencer-roof.
Width 16". Depth up to 7½"



Acoustical Holorib
for acoustical-structural roof.
Width 18". Depth 1½"



Acoustical "D" Panels
for roofs, floors, ceilings.
Width 16". Depth 1½" to 7½"

Leaf Mill

SE-329

*Gathers and Pulverizes
Fallen Leaves*



The recently introduced Turbo Jet power leaf mill greatly simplifies the

problem of maintaining large landscaped grounds. Turbo Jet gathers and pulverizes fallen leaves, blowing the fine chaff back into the lawn as a mulch, leaving the grounds neat and leaf-free. The unit will also clean leaves out of ivy beds, from around curbs, copings and fences, shrubs, and other similarly difficult-to-reach locations.

Advantages include: no leaves to dispose of after raking; easy to operate; low operating and maintenance costs and low purchase price; best quality materials and component parts used throughout.

THE TURBO JET MFG. CO., 22 Bowman Terrace, Cincinnati 29, Ohio.

Drafting Table

SE-330

Available in Four Sizes

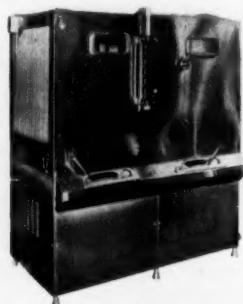
A newly-designed, 4-Post Draft-master Drafting Table has a number of special construction features. The table is built with an all-steel base and selected, smooth finish, kiln-dried soft wood top. It has heavy gauge steel tubular legs fitted with stamped steel, smooth bottom shoes to prevent marring floors. All drawers are of steel construction. The top can be adjusted to any desired working angle by two Lifetime Stacor raising devices which slide into the table legs, to eliminate annoying projections. Zinc plated steel end-cleats hold the board accurately and Stacor's Interlocking Steel Hinge permits lifting the top off easily.

STACOR EQUIPMENT CO., 768-778 E. New York Ave., Brooklyn 3, N. Y.

Utensil Washer

SE-331

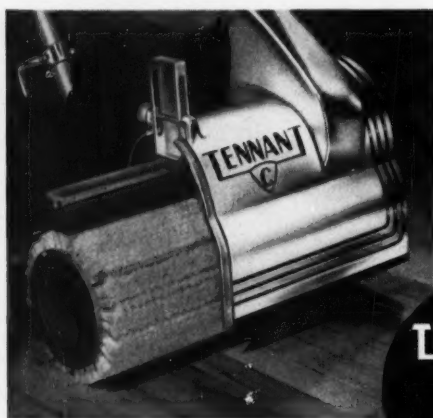
Suitable for Pots, Pans, Trays



The FMC Utensil Washer is designed to wash, scour, and rinse all utensils from pie pans to garbage cans; including trays, ladles, pots, pans, counter shelves, table drawers, and mixing machine elements.

The unit is made of stainless steel and aluminum throughout and consists of two adjoining compartments; one for initial washing and the other for both secondary washing and clear hot water rinsing. Actual cleaning and rinsing is accomplished by an upper and lower high pressure revolving spray system which circulates water maintained at a constant high temperature. Washing and rinsing time is automatically controlled for either one or two minute cycles depending upon item to be cleaned.

FOOD MACHINERY & CHEMICAL CORP., Canning Machinery Div., Hoopston, Ill.



SAVE 4 WAYS
IN
FLOOR CARE

- Equipment
- Man-Hours
- Materials
- Floor Repairs

TENNANT
MODEL
C
FLOOR
MACHINE

...the floor machine that
**CLEANS, WAXES
and POLISHES**
in 1 operation!

Offers more than ANY other machine—in all-around versatility and performance. Its fast-revolving 16" brush (or steel wool roll) instantly buffs dirt off DRY, whisks it into a vacuum bag... applies a thin hard coat of durable bar wax... polishes it to a high luster. Does all this in 1 fast operation!

Then with a quick change of accessories, your custodian is ready for all other floor maintenance jobs, too. Besides DRY-CLEANING, WAXING and POLISHING, he can SAND, BURNISH and SCRUB—with this one compact machine... in a fraction of the usual time.

OFFICES IN PRINCIPAL
CITIES



Write today!

Ask for illustrated bulletin
giving complete details.

G. H. TENNANT CO.
2540 No. 2nd Street
Minneapolis 11, Minn.



Heavy Traffic Corridor cleaned in record time with a TENNANT Model "C" Floor Machine.



4 Different Jobs can be done using these easily interchangeable 8" and 16" accessories.

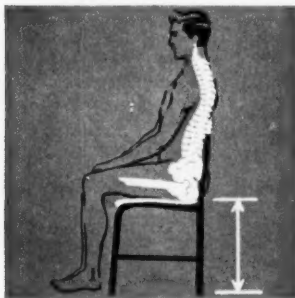
FLOOR MAINTENANCE SYSTEM

CREATORS OF THE TENNANT SYSTEM OF FLOOR MAINTENANCE... MANUFACTURERS OF EQUIPMENT AND MATERIALS FOR MAINTENANCE OF FLOORS, DECKS, ROOFS, HIGHWAYS

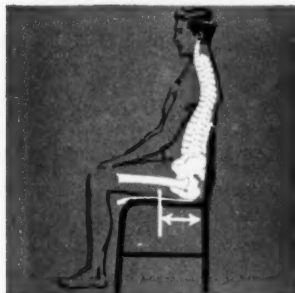
WHAT IS PROPER SCHOOL SEATING?

The deceptively simple and functional lines of the Norcor Tubular Desk and Chair belie the painstaking, careful research and engineering that entered into this design. This school furniture was not built to suit the expedencies of manufacturing equipment—it was designed to fit a live, active child in a comfortable, healthful, untiring sitting posture. Support is provided in the proper places so that the child naturally—and comfortably—assumes an alert, attentive position. The slouching back and slumping chest that promotes fatigue, inattention, and that hinder scholastic progress, are discouraged.

The chart and diagrams illustrate the school seating principles that are incorporated in the design of NORCOR School Furniture.



The most important factor in proper seating is the seat height. The feet should rest firmly on the floor. There should be no pressure behind the knees or thighs on the nerve and blood vessels. The size and shape of the seat and back-rest must be correct for the seat height. See Figures 1 and 5 in Chart A.

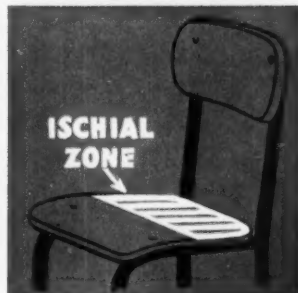


The weight of the body is carried on the Ischial Bones, upon which it is perfectly poised without strain when properly seated. The Ischial Bones of the average student rest on the seat approximately 3" ahead of the line B-C in Chart A, but may normally rest anywhere from the line B-C to a point 7" ahead of B-C.

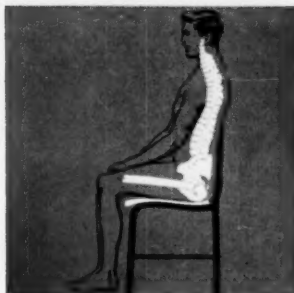
SCHOOL SEATING? CHART A



NORCOR TUBULAR DESKS AND CHAIRS



The back rest and slight backward slope of the Norcor plywood seat helps the Ischial Bones (See Figure 2, Chart A) to find their ideal position on the seat. The Norcor seat is designed to allow for the individual differences in shape and position of the bones, providing a large flat "Ischial Zone."



The backrest properly proportioned and positioned to seat height, supports the trunk in a comfortable relaxed position. Supporting the lumbar region (Figure 5, Chart A) the muscles and internal organs fall into their proper positions and the chest is expanded for deep breathing.

The **NORCOR** *Line*

The NORCOR MANUFACTURING CO., Inc.

Dept. E

GREEN BAY, WISCONSIN

FACTORIES

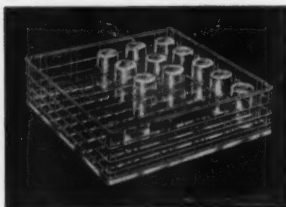
GREEN BAY and GILLET, WIS.

PORTSMOUTH, N. H.

SCHOOL FURNITURE DESIGNED TO FIT GROWING SCHOOL CHILDREN

Glass Rack

Reduces Glass Handling



Metropolitan Wire Goods Corp. is now offering a 36 compartment Sani-Stack glass rack with individual welded cells for each glass. This of-

SE-332

fers a protection which prevents scratching and frosting which ordinarily occurs when glasses come in contact with each other. These Sani-Stack racks reduce glass handling as much as 71% when used for transporting, washing and storing glasses. Compartmented glass racks can be placed on a dolly and over 400 glasses moved at one time—a thousand can be easily moved on a five-foot flat truck.

The racks are made of low carbon bright basic steel dipped in molten tin after fabrication. They can be obtained in all sizes for every type glass and every model dishwashing machine.

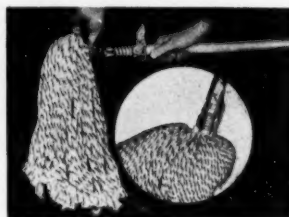
METROPOLITAN WIRE GOODS

CORP., 70 Washington St., Brooklyn 1, N. Y.

Mop

SE-333

Designed for Quick Mop-Head Change



The Green Dragon has been designed for quick mop-change, for greater durability and absorbency, for easier mopping in tight places without scratching furniture or woodwork. A new attachment device, consisting of a simple slide and two hooks, permits changing the mop-heads quickly and easily. It is not necessary to handle soggy strands or to laboriously thread mops through a narrow slot.

Top-quality, highly-absorbent, 8-ply yarn is used in the construction. A green thread running through the strand identifies it as a genuine Don "Green Dragon." The wood handles have special metal parts heavily cadmium plated. The unit is also rust-resistant. There are no nuts or bolts to jam and stick.

EDWARD DON & CO., 2201 S. La-Salle St., Chicago 16, Ill.

SE-55



A New LOW COST WARDROBE

Practical, Easy to Install

Every up-to-date feature has been incorporated in this convenient, good-looking school wardrobe. Finely engineered in non-peeling aluminite finish... this well-made, easy-to-install coat and hat rack represents an exceptional "buy"... especially when combined with the commodious teacher's wardrobe and supply closet and smooth, fire-proof Fiberglas gliding curtaining. Compact, space-saving, this wardrobe deserves your careful consideration. Write for literature.



ARNCO

A. R. NELSON CO., INC.

210 East 40th Street, New York 16, N. Y.

Floor Wax

SE-334

Highly Resistant to Scuffing

Heavy Duty Hard Gloss is the name of a self-polishing floor maintenance finish with high resistance to both scuffing and damp mopping. It is particularly suitable for use on institutional floors.

It produces a hard, high gloss on rubber and asphalt tile, linoleums, vinyl and other plastic type flooring, it also will provide a durable, bright shine on sealed wood and cork floors.

Although it will stand up under frequent wet moppings, a good floor cleaner will easily remove it. The product also has very good spreading characteristics. Although it is hard and bright, it provides excellent traction underfoot.

Under normal conditions, the finish dries in about 20 minutes.

S. C. JOHNSON & SON, INC., Racine, Wis.

Before vacation begins ... get ready for Fall

Equip your school with
new window shades

and **Classroom Engineered**

Window Shade Installations

by JOANNA WESTERN

Diploma



Diploma offers many important features for easier operation and longer wear

- ☐ Side Hem Reinforcement
- ☐ Extended Hems
- ☐ 1 1/4" Oversize Slats
- ☐ Guaranteed Heavy Duty Rollers
- ☐ Cloth Sleeve for Roller
- ☐ No. 4 1/2 Strong Glazed Cord
- ☐ Cord Ends Looped and Metal Bound
- ☐ Adjustable Control Cord
- ☐ Dual Pulleys
- ☐ Adjustable One Piece Light Strip and Brackets
- ☐ Snap-On Cord Attachment
- ☐ Sturdy Cord Cleat
- ☐ Two Point Suspension (Upper Shade)
- ☐ Demountable Assembly Holders

Specialty Designed and Built for Schools

Simple, sturdy and safe for a child to operate! DIPLOMA—a double-roller type installation with adjustable one-piece metal light strip and brackets mounted midway between top and bottom. Every detail specifically designed for rugged use, simplified operation, and to meet the most rigid requirements of practicality and versatility. One shade rolls up, the other down, providing precise light control under all conditions. And Joanna Western DIPLOMA may be easily installed either inside or outside wooden or metal window casings ... with the entire assembly free to swing away from the window to permit easy maintenance.

Combine DIPLOMA installation with JOANNA WESTERN Window Shades for complete satisfaction! Joanna Western VIKING, made of sturdy cotton cambric sealed on both sides with long-wearing vinyl plastic, lets daylight filter through, yet keeps distracting sun glare out. Completely washable, fire-safe, and built to stay fresh and new-looking through years of constant rolling and unrolling. Ideal with the classroom engineered DIPLOMA installation!



For any room that must be darkened in daytime, Joanna Western EXLITE is the perfect window shade. EXLITE keeps daylight out, yet it's light-colored on both sides so that uniform color can be maintained throughout the building. For positive room-darkness in daytime, specify Joanna Western DARKO installation with EXLITE Window Shades.

Joanna Western
MILLS COMPANY

World's Largest Manufacturer
of Window Shade Products

22nd and Jefferson Streets—Chicago 16, Illinois

WILLIAM VOLKER & COMPANY

Western Distributor • Kansas City, Missouri



WRITE TODAY
for illustrated booklet
— "Window Shade Specifications."

Contains complete information and actual samples of VIKING, EXLITE and other outstanding Joanna Western Window Shades. Absolutely FREE of cost or obligation.

Joanna Western Mills Co., Dept. SE-3
1351 Merchandise Mart, Chicago 54, Ill.

Please send me complete information and actual sample of Joanna Western Window Shades ... also information concerning classroom window shade installation.

Name _____

School _____

Street & No. _____

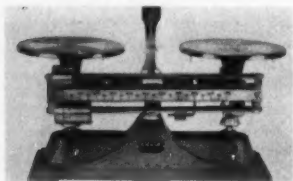
City _____ Zone _____ State _____

☐ Please have your dealer contact us.

Precision Balance

SE-335

Features Micrometer Poise



The balance shown above features a micrometer poise which enables it to be used for a range from 0.5 to

1000 grams - without additional weights. The poise is designed so that it may be slid along the beam for rapid traverse and rotated for final positioning. The poise barrel is calibrated in .5 gram increments which subdivide the 10 gram beam divisions. The balance is equipped with 7" diameter stainless steel plates and etched aluminum graduated beam. The capacity is 5000 gram, sensitivity 0.5 gram. As an additional feature, the balance has an undivided tare beam of 1 pound capacity.

THE OHAUS SCALE CORP., Union, N. J.

Sewing, Cutting Table

SE-336

Available in Blond Finish



The Singer Combination Sewing and Cutting Table is now available in a new blond finish. Designed to brighten the classroom, the light-finished table is topped with laminated plastic, a satin-finish surfacing immune to oils, inks, paints, common acids, flame and scratching.

The table provides sewing machines for two students and ample working space for two more. With the machines hidden away, the table can be used for group discussions, art, shop, or cooking classes.

It is designed with two plywood shields that totally enclose and protect sewing machine heads when in the down position. The fitted inserts covering table openings can be locked. Sewing accessories can be kept within easy reach.

SINGER SEWING MACHINE CO.,
149 Broadway, New York, N. Y.

COLUMN SHOWERS

(FOR GROUP USE)

AT LOW COST

REQUIRE ONLY 3 PLUMBING CONNECTIONS

● Here's the answer to your Shower requirements at low cost.

Without the usual partitions of the 3-stall or 5-stall Bradley Showers, the Column Showers are otherwise complete with drain fittings, sprayheads, soap trays, mixing chamber for temperature control with hot and cold water control valves. Ready to install.

Floor space is saved and by placing Showers away from walls, wall waterproofing is not required and space may be used for lockers and benches.

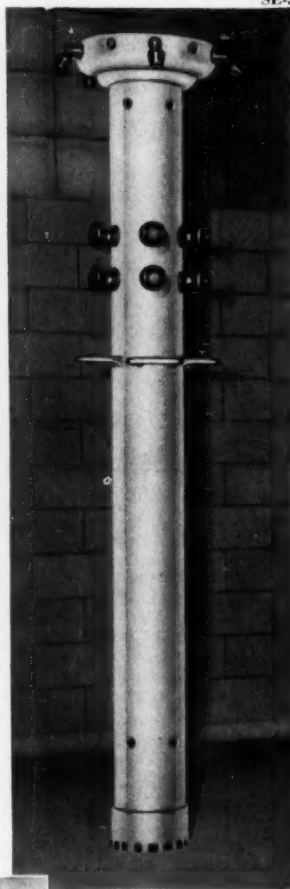
Ideal for Factories, Mines, Camps, Schools, Field Houses, Institutions.

BRADLEY WASHFOUNTAIN CO.

2233 W. Michigan St., Milwaukee 1, Wisconsin

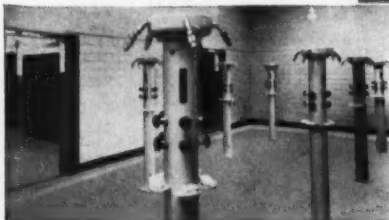
BRADLEY
Showers

Distributed through Plumbing Wholesalers



Left: Installation
of 8 Bradley
Column Showers.—

Write for
Catalog
4701-CS



Resurfacer Kit

SE-337

For Chalkboards



Endur Paint Co. has available a complete package for resurfacing old black slate and composition boards.

A new, improved formula has been developed for making the boards green. No brush marks are visible after application and only a very quick, light sanding is necessary after the final coat.

The kit includes a gallon of Green Resurfacer, a 4" brush, and six sheets of special sandpaper.

ENDUR PAINT CO., INC., 75 N. Salem St., Salem, Mass.

"We taught 3 million teen-agers safe driving...indoors!"

LUMBERMENS MUTUAL CASUALTY COMPANY



"...With **SOUND MOVIES**... and fine Bell & Howell equipment...the story really sinks in!"

says **James S. Kemper**
CHAIRMAN



New! Magnetic Filmosound
202 16mm recording projector lets you add sound to movies easily, inexpensively. Add sound to old silent films, change sound to fit specific needs. Plays both optical and magnetic sound. From \$699.

Optical Filmosound 285 shows sound or silent films at their best! Full, natural sound at all volume levels. From \$449.95.

They learn **faster**, remember **longer** with **SOUND MOVIES!**

In the public interest, Lumbermens Mutual Casualty Company, with the co-operation of the Los Angeles police department, has produced the *Sergeant Bruce Reporting* series of powerful sound movies designed to teach better driving to teen-agers. Only through this great, dramatic teaching tool could so many have been reached so convincingly.

In business and industry, church, school and farm, more and more group training leaders use sound movies to solve heretofore difficult and costly educational problems... and to do it better! No other training method so efficiently

uses the tested principles of demonstration so economically, so easily.

Bell & Howell, world famous for the development of fine audio-visual equipment offers you a wide variety of precision instruments to help you do the best job at the lowest cost.

Bell & Howell
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**FIND OUT TODAY HOW
BELL & HOWELL AUDIO-
VISUAL EQUIPMENT
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Bell & Howell Company
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Please send me, without cost or obligation, complete information on sound movie equipment for use in: ☐ Industry ☐ Home ☐ Church ☐ School

NAME.....
ORGANIZATION.....
ADDRESS.....
CITY.....
COUNTY.....STATE.....

Audio-Visual Aids

SE-401 Posters on Orange Juice

Three colorful posters have been prepared which graphically show why orange juice is good for children. The posters measure 18 x 25 inches and are suitable for use on bulletin boards or classroom walls. S-2 is for lower elementary grades, S-3 for middle elementary and junior high classes, and S-4 for junior and senior high. Free copies are available to teachers, school administrators, and school librarians from THE FLORIDA CITRUS COMMISSION, Lakeland, Fla.

SE-402 Safety Comic Book, Poster

School bus safety rules are explained in an entertaining and informative manner by the Pioneer, a buckskin clad scout

who is the hero of the Pioneer Pointers comic book. A companion poster is also available for bulletin boards. Safety Director, SUPERIOR COACH CORP., Lima, Ohio.

SE-403 Teacher Education Filmstrip

Bringing the Community to the Classroom. Filmstrip. Produced primarily for use in pre-service and in-service teacher education programs, this filmstrip offers valuable suggestions for enriching the curriculum. Also illustrated are ways teachers in various curriculum areas may draw upon the community for instructional materials. WAYNE UNIVERSITY, Audio-Visual Materials Consultation Bureau, College of Education, Detroit 1, Mich.

SE-404 Educational Record Catalog

RCA Victor has just published a comprehensive educational record catalog designed specifically for use by teachers

as a guide to the use of records in the classroom. It lists educational recording created for the specific functions of stimulating basic aptitudes and physical responses and material that is not necessarily functional, but which can provide esthetic musical experience for the student. The catalog also includes lists of recordings suggested as the elements of diversified budget libraries of different sizes, starting at \$50. The 90-page catalog is available through EDUCATIONAL SERVICES, RCA VICTOR DIV., RADIO CORPORATION OF AMERICA, Camden, N. J. at \$1.10 per copy.

SE-405 Walt Disney Shorts

Four Walt Disney Productions are now available on 16mm for school audiences. Titles are: *History of Aviation*, *Behind the Scenes of Walt Disney Studio*, *The Alaskan Eskimo*, and *Disney Cartoon Parade # 1*. WALT DISNEY PRODUCTIONS, Non-Theatrical Film Division, 2400 W. Alameda Ave., Burbank, Calif.

SE-406 Film Catalog

Coronet Films Catalogue of 16mm Educational Sound Motion Pictures 1953-54. This very comprehensive catalog is divided by subject matter into grade levels. Each film is amply described and prices are included. CORONET FILMS, 65 E. South Water St., Chicago 1, Ill.

SE-407 Antibiotics

And the Earth Shall Give Back Life. The amazingly complex process of manufacturing the wonder drugs, such as penicillin, is simply and dramatically set forth in this new 25-minute sound film. It explains to the layman just what the wonder drugs are, what they do, and how and when they are used, the earth is in effect "giving back life." MOTION PICTURE DEPT., E. R. SQUIBB & SONS, 745 Fifth Ave., New York, N. Y.

SE-408 Reading-Readiness

Several new additions have been announced for the *Background for Reading and Expression* series of 16mm motion picture on reading-readiness. Titles are: *One Rainy Day*, *The Toy Telephone Truck*, *What the Frost Does*, and *Zoo Animals of Our Storybooks*. The films are designed to bring to teachers soundly-planned instructional materials that provide youthful audiences with vivid, varied group experiences. Upon this experience may be based a variety of meaningful, extended classroom activities, such as further reading, writing, singing and drawing of pictures. CORONET FILMS, CORONET Bldg., Chicago 1, Ill.

SE-409 Color Cartoons

The following 16mm sound cartoons in color have been released: *Solid Ivory*, *Well Oiled*, *Smoked Hams* and *Giant Killer*. CASTLE FILMS, 1445 Park Ave., New York, N. Y.

SE-410 Queen Elizabeth

Queen Elizabeth II. 35mm filmstrip. This strip is a delightful glimpse into the life of the new Queen of England. Her early childhood, the coronation of her parents, her education, her war service, the Royal tour through Africa in 1947, her engagement, her wedding and various state functions make up the film. BRITISH INFORMATION SERVICES, 30 Rockefeller Plaza, New York, N. Y.

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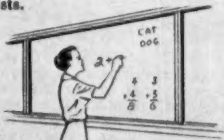
ARCHITECTS have confidence in the LOXIT SYSTEMS.



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**COMPLETE PACKAGE
CHALKBOARD SYSTEM**

LOXIT TRU-SNAP Trim — LOXIT-TYLAC RITE GREEN
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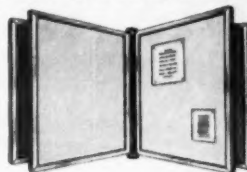
WHAT ARE the requirements of a good chalkboard set-up? Simple installation? Easy maintenance? Beautiful appearance? Trouble-free service? Trim that's fireproof; doesn't warp, expand or contract; that is easy to clean and never needs repainting? Chalkboards that provide an excellent writing surface which is easy to read; that erases well and can be washed as often as necessary? Tackboards in which pins and tacks go easily, hold tightly, and the holes close when they are removed? Loxit assures you all these—and more! The beautiful all-aluminum TRU-SNAP trim with its smooth, non-glare GLO-DULL* finish available for both surface-applied and plastered-in jobs. Spring feature at ground compensates for expansion, contraction and settlement. The RITE GREEN chalkboard is the ultimate in eye-ease and smooth-writing qualities.

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SWING PANEL BULLETIN BOARDS

Panels pivot to a full 180° position. All trim is Loxit GLO-DULL aluminum finish which stays permanently beautiful. Panels finished both sides with RITE GREEN chalkboard or TYLAOKORK. Standard units of 4, 5 or 6 panels in sizes 36" x 36", 36" x 42", 36" x 48".



LOXIT SYSTEMS, INC., 1217 W. WASHINGTON BLVD., CHICAGO 7, ILL.

Manufacturers' Catalogs

SE-411 How to Select a Chalkboard

The A B C's of Chalkboard Selection, Use, Care. 65 pages. This booklet is designed to bring together in one manual, much useful information about how to choose a chalkboard and how to prolong the life of one. PENNSYLVANIA SLATE PRODUCERS GUILD, INC., Pen Argyl, Pa.

SE-412 Scaffolds

Up-Right Scaffolds announce that they have a descriptive catalog available with full information on their mobile tower scaffolds and other units. Write to UP-RIGHT SCAFFOLDS, Dept. 132, 1013 Pardee St., Berkeley, Calif.

SE-413 Steam Trap Maintenance

Barnes and Jones have a new catalog available called *Steam Trap Maintenance—How to Test, How to Repair*. Besides the catalog, you can obtain a free sample of a cage unit that will fit your traps if you state make, pipe size, model no. and pressure. BARNES & JONES, INC., 218 Brookside Ave., Jamaica Plains, Mass.

SE-414 Cleaning Problems

Commercial Stationary Vacuum Cleaning, Bulletin No. 121-B. Special attention is given in this booklet to the cleaning problems in schools and similar institutions. Recent advances in the special vacuum equipment for picking up water, cleaning dry mops, boiler tubes, venetian blinds and all types of machinery are described together with an outline of the special vacuum tools for these purposes. THE SPENCER TURBINE CO., Hartford, Conn.

SE-415 Hand Tools

A new hand tool catalog may be obtained from Greenlee Tool Co. It describes Greenlee auger bits, drills, chisels, gouges, spiral screw drivers, push drills and other tools for professional or amateur use. THE GREENLEE TOOL CO., 2136 12th St., Rockford, Ill.

SE-416 Drafting, Drawing Supplies

The Alvin Co. announce the publication of a new 60-page catalog describing a complete selection of drawing and drafting supplies. THE ALVIN CO., Windsor, Conn.

SE-417 The Homemaking Classroom

Education for Living . . . Planning and Equipping the Homemaking Classroom. This catalog gives some very helpful facts on the requirements of the homemaking department, how to arrange the unit kitchen, storage space, the demonstration unit, typical installations, clothing classroom and laundry, etc. Write to ST. CHARLES MFG. CO., St. Charles, Ill.

SE-418 Incandescent Lighting

Folio No. 1-53. This 16-page folder illustrates and describes over thirty different incandescent lighting fixtures. Wide use of sketches and tables make the catalog a detailed reference for specifications on incandescent lighting applications. GRUBER LIGHTING, 125 S. First St., Brooklyn 11, N. Y.

SE-419 Twist Drills

The DoAll Company has just published a 16-pg. catalog of twist drills. This literature covers a variety of types including straight and taper shank for both general and special use, three and four-fluted drills in both straight and taper shank styles, heavy duty and high helix drills, etc. THE DOALL CO., Des Plaines, Ill.

SE-420 Pencil Sharpener

A new, loose-leaf type folder is available on the APSCO line of pencil sharpeners. THE AUTOMATIC PENCIL SHARPENER CO., 336 N. Foothill Rd., Beverly Hills, Calif.

SE-421 Utility Trucks

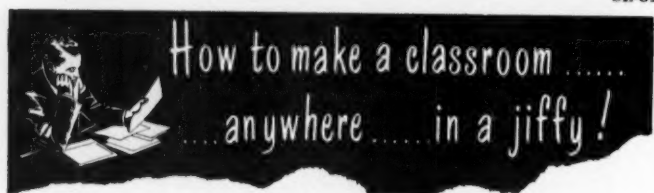
A new catalog giving detailed information on the application and operation of janitorial carts, steel platform trucks and custodial trucks is available. Specifications include construction data and overall dimensions. THE PAUL O. YOUNG CO. On the Bethlehem Pike Line, Lexington, Pa.

SE-422 Use of Wood in Building

Advancements in Wood Research and Timber Engineering. 32-page booklet. This booklet combines a report of current activities of TECO in advancing the use of lumber and wood products with a presentation of TECO services and facilities. TIMBER ENGINEERING CO., 1319 18th St., N. W., Washington 6, D. C.

SE-423 Anti-Rust Paints

Bulletin L-6976. This catalog sheet shows how Apex Anti-Rust paints stop rust in one application without surface preparation of any kind. The paints absorb surface rust and seal the clean metal beneath from further rust or corrosion. PARAMOUNT INDUSTRIAL PRODUCTS CO., University Center Station, Cleveland 6, Ohio.



Rowles Portable Blackboards



If you're faced with over-crowded classroom conditions, there's a Rowles Portable Blackboard that can help you solve your problem.

It's easy to set up additional classrooms . . . anywhere . . . in library, study hall, auditorium, corridor, spare room . . . and all it takes is a Rowles Portable Blackboard.

A Rowles Portable Blackboard gives all the features of the regular classroom chalkboard, yet it can be conveniently moved from room to room and stored when not in use.

There's a style and size to meet your needs. Easel, wall mounting or swing frame style; single or double surfaced; reversible types; your choice of See-GREEN or standard black color.

Let your local Rowles School Equipment Dealer help you select the Portable Blackboard to fill your needs.

E. W. A. ROWLES COMPANY ARLINGTON HEIGHTS, ILLINOIS

Save time and money

by washing walls new again
many more times before

repainting. . . The secret is
Pratt & Lambert Lyt-all

Stippling Eggshell—*Odorless*
type—applied and stippled in
one operation.

Pratt & Lambert Lyt-all Stippling Eggshell cuts maintenance costs because it's truly *scrubbable*. You paint walls less frequently—wash them *new* many extra times. When you finally do repaint with Lyt-all Stippling Eggshell, you save labor because it may be quickly rolled on and stippled in *one* operation *and there is no objectionable odor*.



PRATT
and **LAMBERT**
PAINT and VARNISH

PRATT & LAMBERT, INC. — NEW YORK • BUFFALO • CHICAGO • FORT ERIE, ONTARIO

SE-66

How to rate an "A"

in reduced china breakage!



No study necessary—just adopt the AMF Lowerator Dispenser System of dish handling. Your "report card" at the month's end will delight you—less china breakage—more efficient operation!

Dishes are handled and rehandled less. A large quantity is always ready for immediate use, safely and sanitarily positioned.

And you'll rate other "A's"...

"A" in **FASTER FOOD SERVICE**—Dishes are where they're wanted, when they're wanted.

"A" in **SAVED SPACE**—Get rid of stacks of dishes on counters.

"A" in **WORK MADE EASIER**—No need to stoop, bend or reach for dishes.

Put your food service operation at the top of the class—with the AMF Lowerator Dispenser System of dish handling.

Consult Your Kitchen Equipment Dealer or write for Catalog. There are Mobile and In-Counter Models, Heated, Unheated and Refrigerated Units.

For plates, cups, saucers, bowls, glasses, trays. Refrigerated units for milk, beverages, etc. Heated units for cups, soup bowls, plates.



LOWERATOR SALES DEPARTMENT
AMERICAN MACHINE & FOUNDRY COMPANY
485 FIFTH AVE., NEW YORK 17, N. Y.



SE-188

The Original PARRIS BOLT-ACTION TraineRifles For All Age Groups

M-20
"Small-Fry" Model.
23½ inches long.

M-21
Junior Clicker. 27½ inches long.

M-22
TraineRifle-Clicker.
33½ inches long.

M-23
Super TraineRifle.
35½ inches long.

M-30
With stacking swivel. New leather or used Army slings or web slings. 43½ inches long.

Here is the best and safest equipment you can get for student drilling units. All Parris TraineRifles have genuine wood stocks with furniture finish. Boys slam realistic, heavy-duty bolt into cocked position, then pull trigger for loud "crack" that simulates firing.

Write for Prices

PARRIS MFG. CO. - Savannah, Tenn.
Home of the National Catfish Derby



BEAUTIFUL - LASTING

SAFE - ECONOMICAL

Rubber
Armor-Treds

CLIP AND
MAIL
NOW

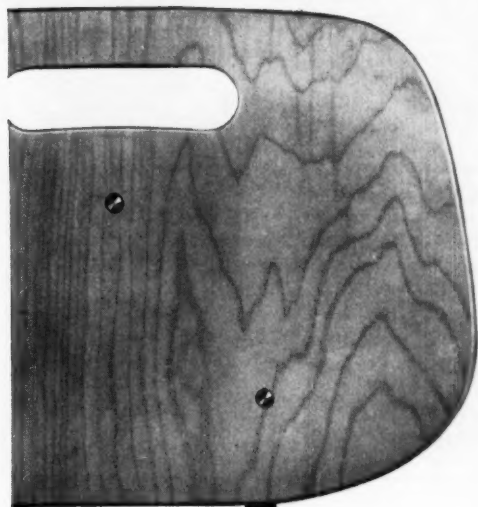
Six marbleized colors and plain black from which to choose. ARMOR-TREDS are ¼" thick, 12½" deep, in widths of 24", 31", 36", 48" and 62". The ARMOR-TILES, for landings and ramps, are 26" x 26" in similar colors and surface design. Smooth riser material of matching colors can be supplied.

AMERICAN FLOOR PRODUCTS COMPANY
4920 Wisconsin Ave., N. W., Washington 16, D. C.

Please send me catalogue and prices on your entire line of mats and treads

NAME _____
FIRM _____
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Only Brunswick offers you the **FOUR** in **ONE** chair



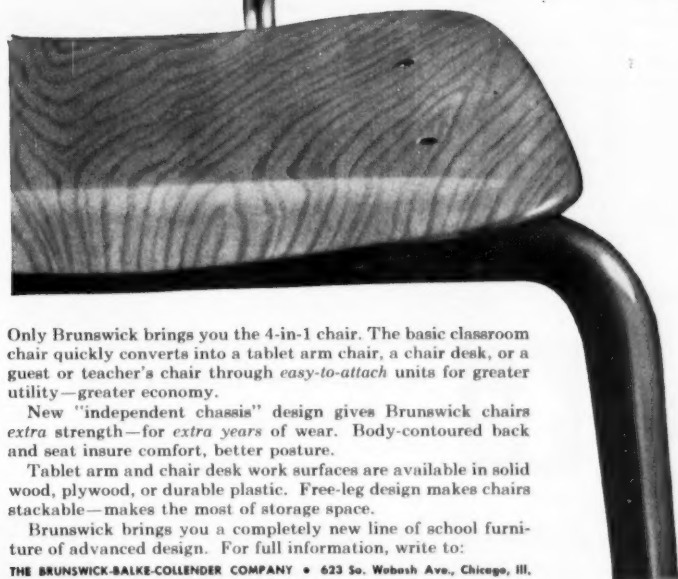
Tablet Arm Chair—Exclusive "Write Angle" work surface unit quickly converts basic chair to tablet arm chair. Offers the ultimate in writing comfort. Right- or left-hand units.



Chair Desk—Trapezoidal work surface unit quickly converts basic chair to chair desk. Plus elbow support for extra writing comfort. Easy accessibility. Right- or left-hand units.



BRUNSWICK



Only Brunswick brings you the 4-in-1 chair. The basic classroom chair quickly converts into a tablet arm chair, a chair desk, or a guest or teacher's chair through *easy-to-attach* units for greater utility—greater economy.

New "independent chassis" design gives Brunswick chairs *extra* strength—for *extra* years of wear. Body-contoured back and seat insure comfort, better posture.

Tablet arm and chair desk work surfaces are available in solid wood, plywood, or durable plastic. Free-leg design makes chairs stackable—makes the most of storage space.

Brunswick brings you a completely new line of school furniture of advanced design. For full information, write to:

THE BRUNSWICK-SALKE-COLLENDER COMPANY • 623 So. Wabash Ave., Chicago, Ill.



Guest Chair—Comfort-curved arm rest unit quickly converts basic chair to guest chair. Dust-free book rack optional on all chairs.

Brunswick



Snyder STEEL BLEACHERS

portable
sectional
permanent

Safe... All Snyder grandstands and bleachers, with the exception of seatboards and footboards, are built throughout of structural steel, making Snyder Steel Stands Safer.

Economical... Ease in installation, fabricated for long usage, and designed so that additional sections can be added, or moved about, makes Snyder Steel Stands Economical.

So for Safety and Economy, specify Snyder Steel Stands or Bleachers. Our engineers will gladly help in planning your next installation.

For further information write:

SNYDER TANK CORPORATION

P. O. Box 14, Buffalo 5, N. Y. • P. O. Box 2390, Birmingham 1, Ala

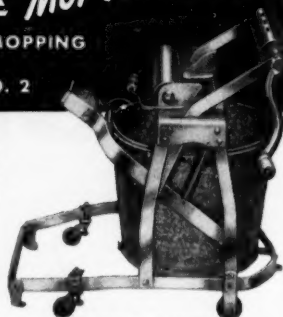
SE-94

LAWLOR MOP WRINGERS

FOR EASIER MOPPING
GET A
LAWLOR NO. 2

EASIEST
turning wringer
made: there are
bearings at ends
of rollers.

EASY
to bring rolls to-
gether: foot lever
is perfectly bal-
anced.



Copied but never Duplicated!

EASY to move wringer: self-adjusting front casters raise metal feet from floor when you're ready to go.

The **LAWLOR No. 2** accommodates any standard round, galvanized pail up to 16-quart capacity. Net weight of wringer—23 pounds.

LAWLOR No. 6 TWIN is like the No. 2 Wringer in general construction, but accommodates two pails.

Write for Catalog of Mop Wringers, Tanks, Cleaning Equipment for every kind and size floor.



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Quality Floor Equipment for 50 Years
128 N. Aberdeen St., Chicago 7, Ill.

SE-96

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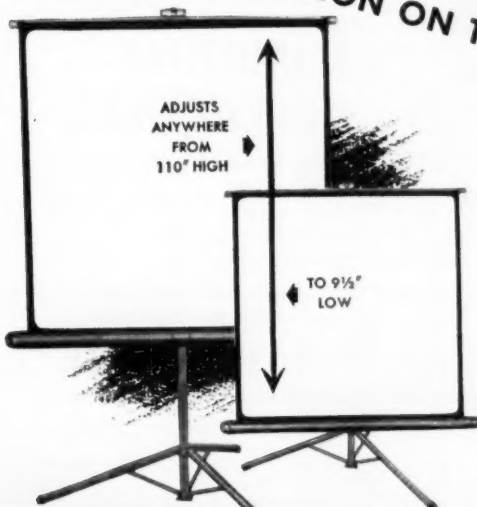
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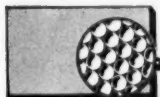
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Light conditions are always right...
FOR PROJECTION ON THESE RADIANT SCREENS

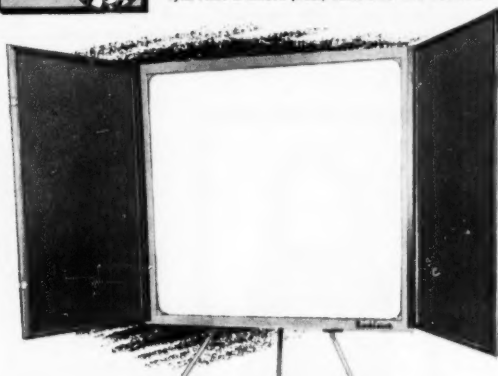


ADJUSTS
ANYWHERE
FROM
110" HIGH

TO 9 1/2"
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BRIGHTER, MORE BRILLIANT PICTURES, TOO!
 The "Educator" features Radiant's new, improved Perma-White Processed Vyna-Flect glass beaded fabric to guarantee the most perfect picture projection possible. And this Vyna-Flect is mildew-proof, flame-proof and washable.



FREE! SEND COUPON TODAY for detailed specifications on these two outstanding Radiant Projection Screens. Illustrated, descriptive circulars and price lists will be sent without obligation.

RADIANT Projection Screens

RADIANT Manufacturing Corp. • 1210 S. Talman • Chicago 8, Illinois

New RADIANT "Educator"

**For Darkened Rooms,
with full height adjustment**

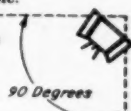
For classroom or auditorium... with or without platform or stage the Radiant Educator can be quickly set up for perfect visibility. A touch of the toe and the extra sturdy tripod legs fly open. The 70" model adjusts from only 9 1/2" from the floor to a height of 110"... and is easily adjustable to square sizes for slides, rectangular sizes for movies. *Fully guaranteed for 10 years.*

New RADIANT "Classroom"

**For Lighted Rooms, with full
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Projecting in lighted rooms is no longer a problem. The advanced design of the Radiant "Classroom" Screen has proven its ability to show bright, clear pictures in daytime or under artificial lighting. Doubles the efficiency of visual aid programs... eliminates the need for costly room-darkening equipment in most class rooms. The screen surface is unbreakable.

Brilliant clear pictures which can be seen throughout a full 90° viewing angle permits every student to see a sharp, clear picture from his own seat.



RADIANT MFG. CORP.

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Most Amazing 16mm. Sound Projector in Motion Picture History



W. C. DEVRY

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"Army-Navy engineers, collaborating with DeVry technicians, made possible DeVry's mighty JAN," said W. C. DeVry, president of the DeVry Corporation of Chicago. More than 10,000 JANS have been ordered for instructional and entertainment purposes by the Armed Forces.

This modern marvel of the 16 mm. motion picture projection field, because of its unparalleled sound, picture qualities, and other exclusive features, is the ideal unit for use in all branches of education.

Have your DeVry dealer give you a free demonstration at your convenience—or mail coupon below for full facts today! Also get full information on the smart DeVrylite "5".

USE LIBERAL TRADE-IN PLAN

Take advantage of your DeVry dealer's new, remarkable trade-in plan which permits you to apply the present market price of used sound or silent movie projectors against the purchase price on all new DeVry equipment.

OVER 10,000 JANS ORDERED BY ARMY-NAVY

Free! MAIL COUPON FOR FULL FACTS ON JAN AND TRADE-IN PLAN!

Mr. W. C. DeVry, President
DEVRY CORPORATION
1111 Armitage Avenue
Chicago 14, Illinois

SE 5-53

Please send me full facts, without obligation, on:

- ☐ 1. DeVry JAN projector.
☐ 2. Liberal trade-in plan.
☐ 3. DeVrylite "5."

Name _____

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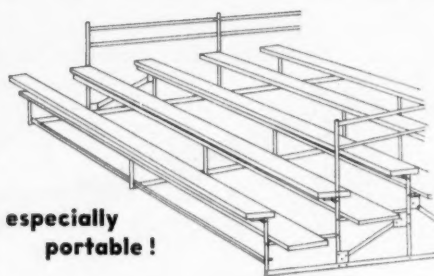
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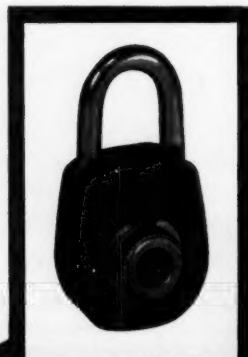
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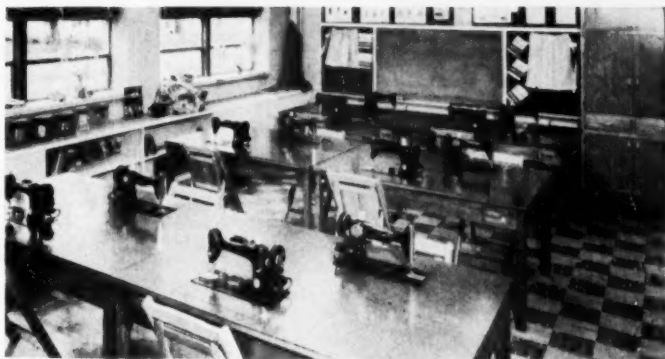
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Simply lower machines into SINGER Table—slip removable panels back into place—you have a smooth, continuous surface. (An extra blessing if the room is used for other classes or study hall.)

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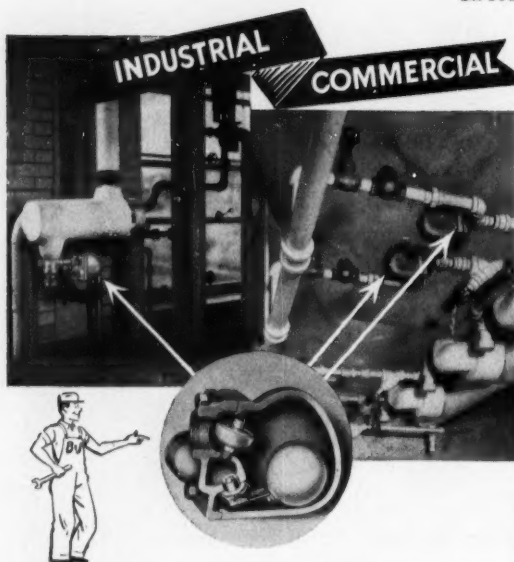
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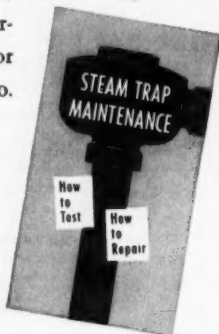
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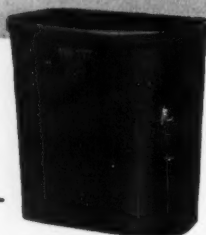
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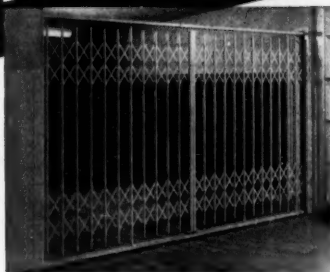
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SE-114



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you need a luminous indirect fixture like the

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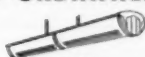
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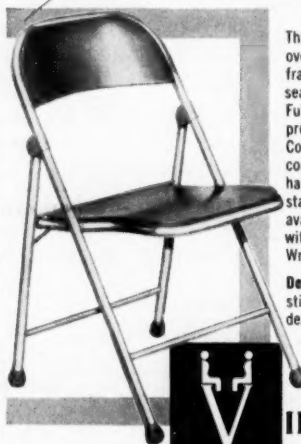
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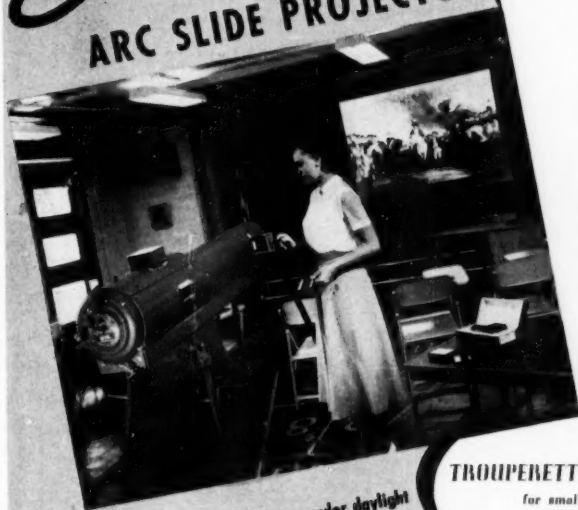
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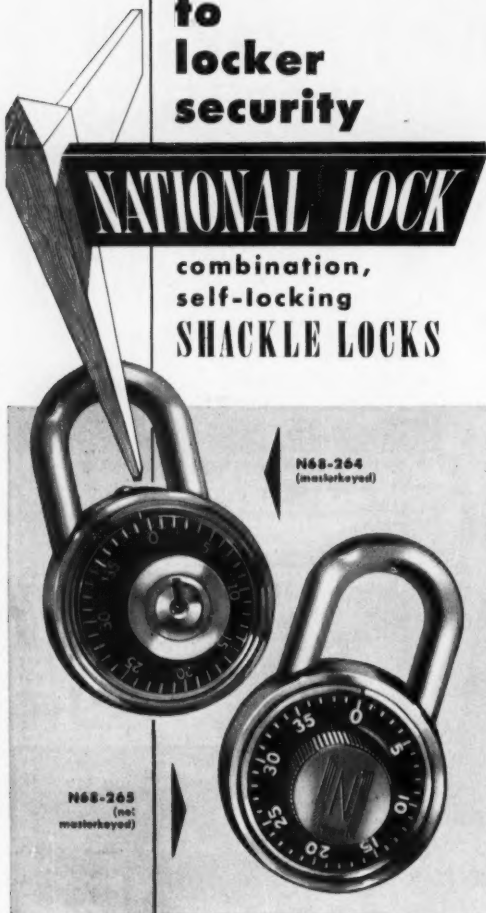
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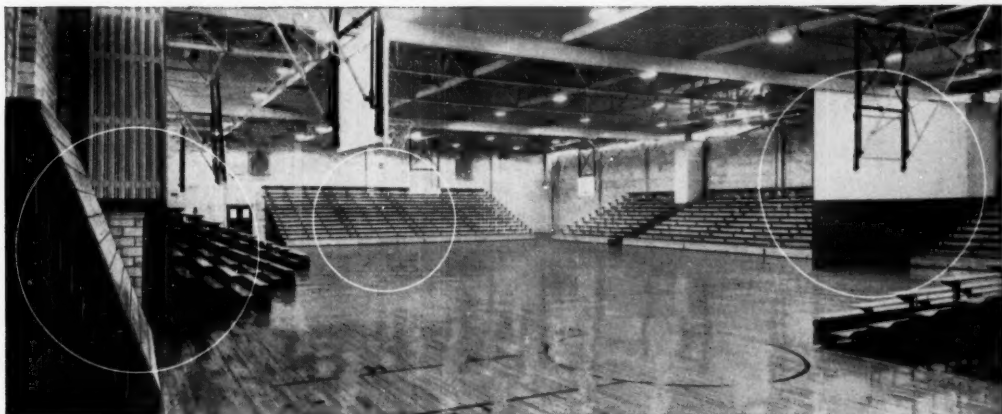
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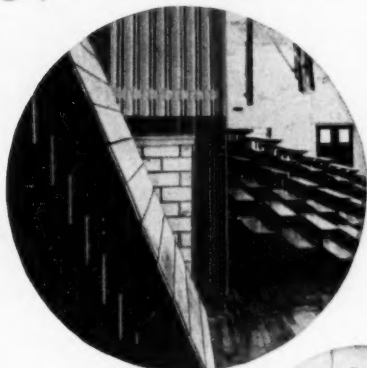
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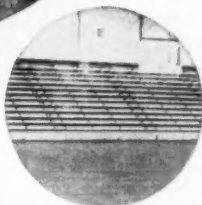
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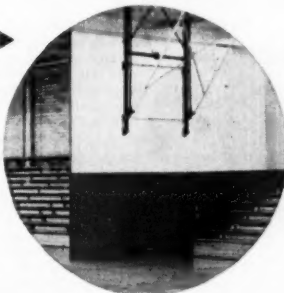
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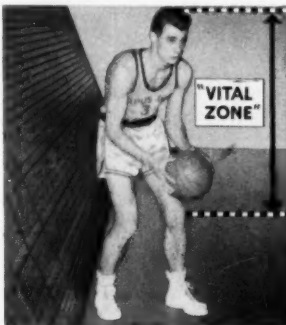
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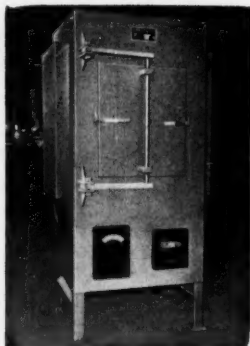
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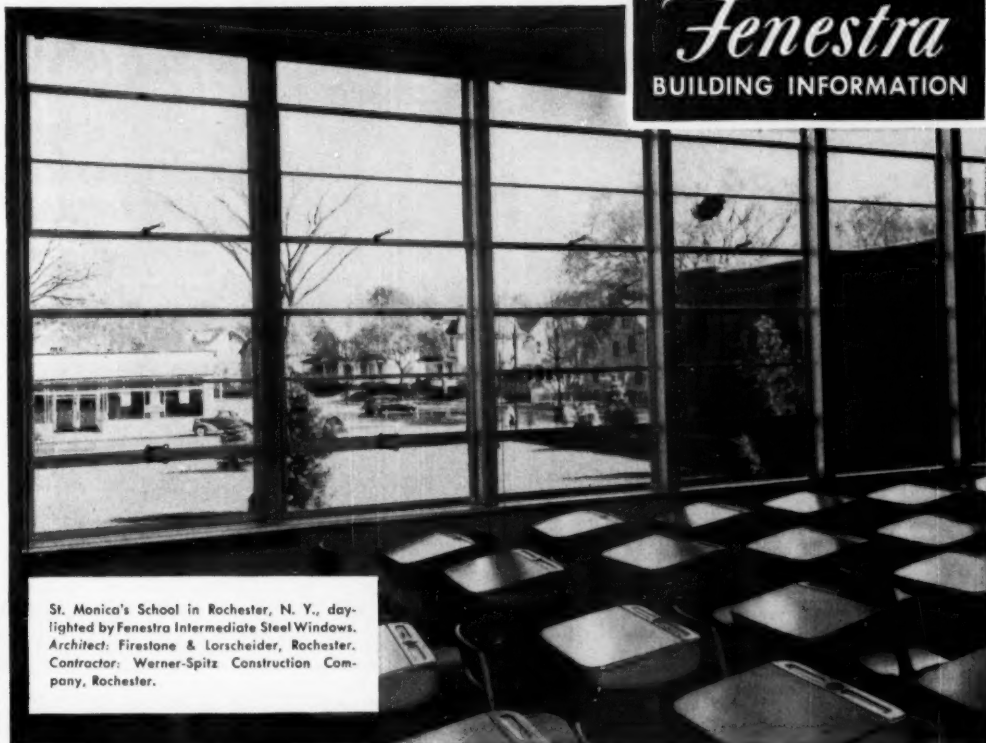
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BUILDING INFORMATION



St. Monica's School in Rochester, N. Y., daylighted by Fenestra Intermediate Steel Windows. Architect: Firestone & Lorscheider, Rochester. Contractor: Werner-Spitz Construction Company, Rochester.

How much of this free light would you block out?

Most of the school year, you need to *bring in* all the daylight you can. *Clear glass* brings in more daylight than any other kind of glass. And with Fenestra® Intermediate Steel Windows you get *extra clear glass area* because Fenestra's frames are designed to be strong and rigid without being bulky.

These modern windows open up your whole room for an atmosphere of freedom and alertness.

You get controlled fresh air

through the protecting vents in any kind of weather. You're protected from drafts. And rain can't get in.

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Fenestra Steel Windows are available Super Hot-Dip Galvanized for complete protection from rust . . . *no painting necessary*. This Super Galvanizing is done in a

special Fenestra plant . . . only Fenestra can offer it.

When you're buying daylight, get your money's worth . . . Fenestra Intermediate Steel Windows—by America's largest steel window manufacturer. And for your free copy of *Better Classroom Daylighting* by Lighting Expert R. L. Biese, Jr., and his staff, write Detroit Steel Products Co., Dept. SE-5, 3411 Griffin St., Detroit 11, Michigan. **

Fenestra

INTERMEDIATE STEEL WINDOWS
For better school environment . . .

SE-134
SCHOOLS PLEASE NOTE...

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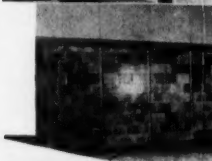
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178

Fairhurst installation in gymnasium, Riverhead High School, Riverhead, N. Y. Wm. I. LaFon, II, Architect. Top: View of units partly closed. Bottom: Wall in complete position.



SE-132
Fairhurst
Unitfold
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Unitfold folding wall offers particular advantages for multiple use of present space—

NO MECHANICAL POWER REQUIRED

✓ easy to operate, regardless of number of units

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SE-133

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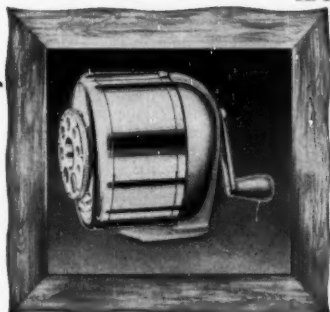
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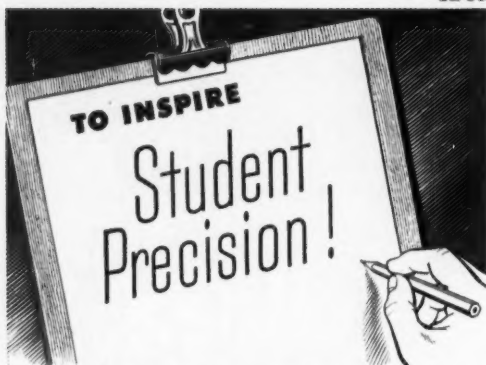


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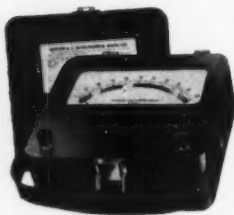
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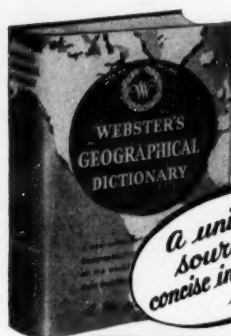
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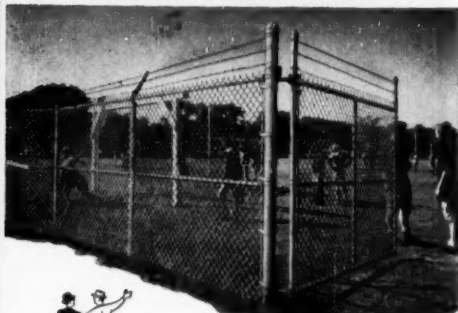
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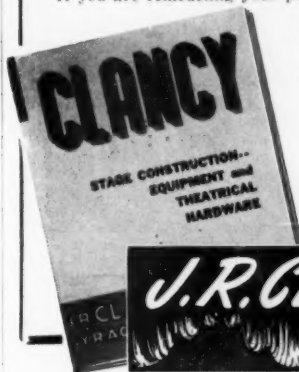
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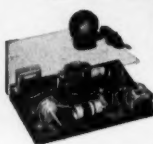
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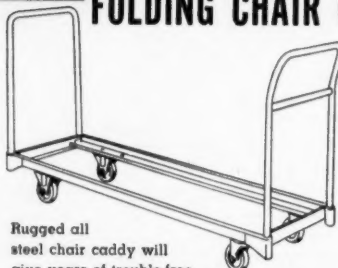
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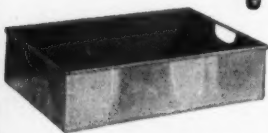
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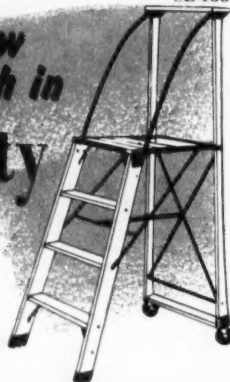
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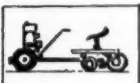
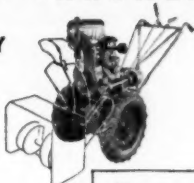
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MAXIM SNOW THROWERS

NOW A GOOD BUY
FOR DECEMBER
OR JULY



3-Gang 72" Mower



37" Rotary Mower

Now you can use a Maxim Snow Thrower all year long. The snow thrower unit is readily removable, leaving a sturdy 7.5 h.p. tractor on which you can quickly attach the equipment shown here. Tractor is equipped with a heavy duty transmission having 3 forward speeds and one reverse. Use this one piece of equipment for snow removal, mowing, rolling, grading, or hauling.



700 lb. Lawn Roller



42" Grader or Snow Blade



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May, 1953

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Tablet
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SE-161

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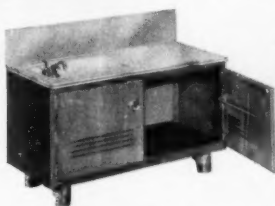


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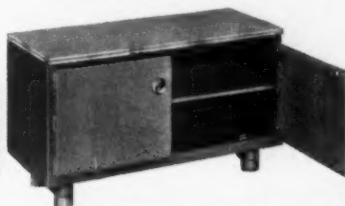
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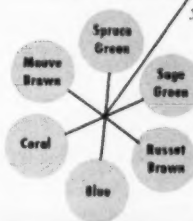
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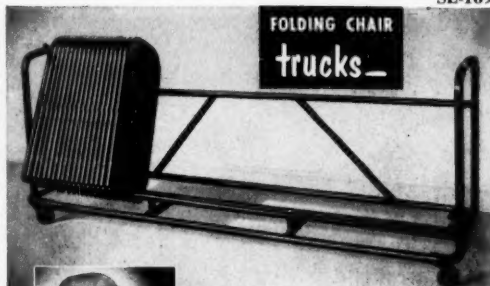


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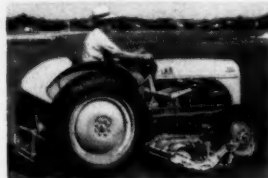
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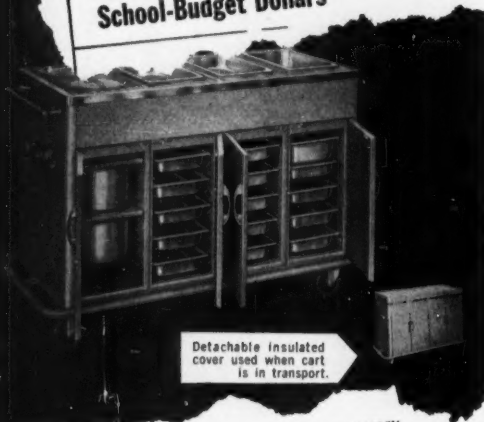
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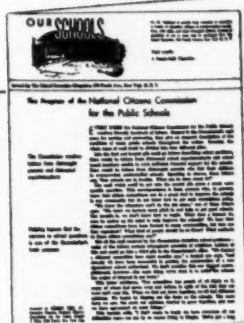
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Honeywell controls can stop classroom stuffiness before it starts



DROWSY students often indicate a stuffy classroom. This condition can be prevented if outside air, heat and humidity are delivered to the room in proper balance all day long.

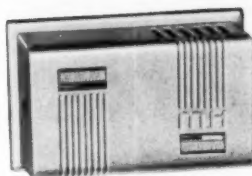
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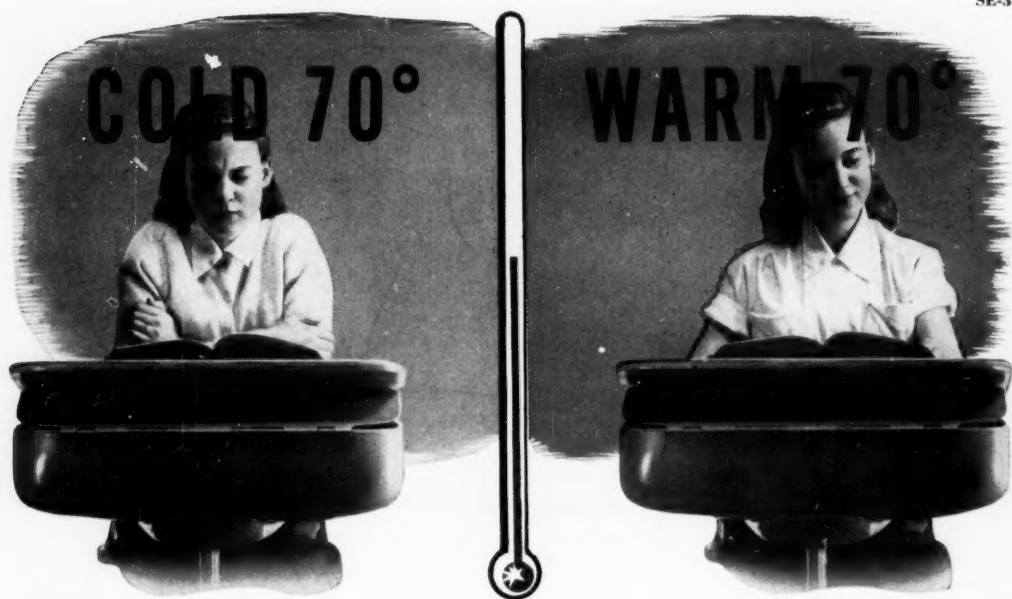
The importance of Individual Room Temperature Control

When each room has its own Honeywell Grad-U-Stat (shown above), heat and fresh air can be regulated to meet the changing conditions that affect students' comfort. For example, the Grad-U-Stat can be set to supply less heat and more fresh air during tests or increased classroom activity.

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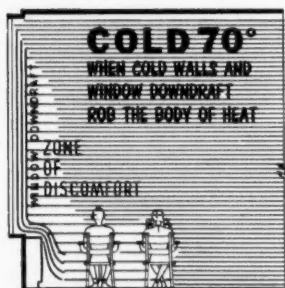


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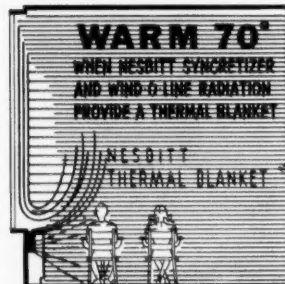


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The NESBITT Thermal Blanket ... Syncretizer with WIND-O-LINE



With room-air temperature evenly maintained, downdraft from large cold windows may remain the robber of comfort.



The Syncretizer and Wind-o-line temper downdraft, raise it out of impression range, improve thermal balance.

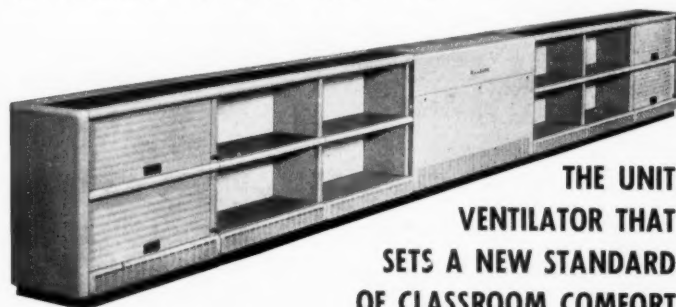
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The Nesbitt Syncretizer and Wind-o-line Radiation solves the problem of heat loss logically by supplying a *heat gain* all along the windows to temper the cold downdraft and to restore bodily thermal balance . . . Warm 70°.

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